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ACUTE DELIRIUM,

IN 1845 AND 1860.

The affection known to French alienists under the name of Acute Delirium, and which has heretofore generally been confounded with Meningitis, the writer judges from his own experience, must be painfully familiar to physicians of Institutions for the Insane. Yet we seldom see it referred to in the reports of either British or American asylums under any title at least that can be conveniently used for expressing the nature or distinctive character of the disease. There may be various reasons for this which it is not necessary now to consider, but supposing the affection to be well known to alienists in England and this country, it may be that a general conviction of the incorrectness of the term Meningitis has led to its abandonment, while the French designation, owing to its want of clearness and precision, has never proved an acceptable substitute.

Cases of this affection appear to be included in hospital reports under the head of acute mania — a comparatively harmless disease as far as danger to life is concerned, and no effort has been made in our language, so far as the writer is aware, to draw a distinct line of separation between the two maladies. Yet when we consider the violence of the symptoms and the danger to life attendant upon acute delirium, it seems very desirable that it should be distinguished from ordinary mania,

that its symptoms should be clearly described, and that its separate existence should be recognized under some appropriate title. In order to remedy in part, this deficiency, we purpose to lay before the readers of the JOURNAL a brief abstract of the views and opinions expressed in two different works on the subject of this affection, the one, published in 1845, by Dr. Brierre De Boismont, and the other by Dr. F. Calmeil, in 1859.

"There exists," says the first of these writers, "a form of disease which the ancients called Phrenitis, and the moderns have designated as acute delirium, which, though well known to alienists, has never been the subject of any special treatise. Viewed from the earliest antiquity as a lesion of the brain and its membranes, Phrenitis is regarded by the majority of authors at the present time as identical with meningitis, encephalitis, or meningo-cephalitis." After thus briefly defining his subject and sketching with a masterly hand the portraits of eleven cases of the disease taken from his own practice, he proceeds to give, under the different heads of disorder of the intellect, of the sensibility, of muscular action and of other functions, an elaborate description of the symptoms of the affection. It will not be necessary to follow the author closely through this portion of his treatise. It will be sufficient to notice briefly a few of the more striking of the mental and physical characteristics of the disorder.

The mental disorder in this affection, according to our author, assumes a character peculiar to itself. There is, in the cast of the countenance, in the motion of the eyes, in the gestures and attitudes of the patient, a sinister expression which shows at once the nature and gravity of the disease. The delirium is nearly always of a very

high grade, the ideas are confused and incoherent, and altogether uninfluenced by outward objects. It is impossible to attract the attention of the patient; the most earnest appeals make no impression on him; he is deaf to the voice of relatives and friends, or if his attention is gained for a moment, he answers incoherently, and his mind immediately wanders again. The attendant excitement is generally noisy and violent in its character. The patients cry, sing, shout, become angry, threaten abuse, and attempt to strike or to bite those who approach them. In some cases the agitation and fury are so great as to resemble those of a rabid animal. This is not, however, always the case. Sometimes, while the conduct is irrational, the delirium is of a more quiet kind. Some patients are alternately noisy and taciturn, and there are others who maintain an obstinate silence during the whole course of their malady.

A remarkable peculiarity of this form of delirium is a tendency to temporary remissions of its violence. The patient, a moment ago, excited, furious, and without a shadow of reason, seems all at once to come to his senses and answers questions correctly, though briefly, as if in haste to be done with them. Sometimes the consciousness is only partly restored — rational answers are mingled with ideas which are incoherent— the delirium seems to leave the patient reluctantly. These lucid intervals are sometimes of considerable duration; one young man, who had been the subject of terrible excitement, had a return of reason which lasted for fifteen hours.

The disease presents two well defined stages or periods, one of excitement, the other of collapse. The duration of the first varies in different cases. While the agitation

sometimes continues even to the last hours of existence, it may cease almost at the onset. It is generally prolonged during a portion of the progress of the malady; diminishes in intensity and is gradually replaced by the stage of collapse. There are cases in which the stage of excitement is scarcely observable, in others it is intermittent. The period of collapse is sometimes very brief, appearing only in the last moments of life. At other times it is of considerable duration. The symptoms of this period vary with the idiosyncrasies of patients. Some lie in bed and are silent or only mutter a few disjointed words, the meaning of which is scarcely intelligible. Others talk constantly in a low voice, but distinctly. There are some who rouse from their stupor, from time to time, to cry and shout, or abuse their attendants.

Under the head of disordered muscular action, the author describes a condition in which the increased strength appears to be only an exaggeration of the natural muscular activity, as is observed in anger, in maniacal excitement and in intoxication. In this condition, owing to the ceaseless muscular efforts, leaping, shouting, upsetting furniture, and striking, kicking and biting those who approach them, which efforts tend rapidly to exhaust the strength of the patient, it is generally necessary to confine him by means of the bed-strap to a recumbent position. Another form of disordered muscular action, which the author however states he has only seen twice in fifteen cases, consists in a constant mechanical or involuntary motion of the hands and fingers, as though the patient was trying to seize objects floating in the air, or to remove something adhering to the bed clothes. (*Curpologie crocidisme.*) Muscular spasm is a third form of disordered mobility, and may be either local or general.

Among the regions of the body most likely to be attacked with spasms, the jaws and the œsophagus deserve particular notice. Grinding of the teeth is very common with some patients; in others, the jaws are closely shut, especially when it is required to give the patients drink. The refusal of liquids so common in acute delirium seems to depend upon spasms of the œsophagus. The aversion to liquids and the obstinate efforts to reject them, so long continued in spite of the fever, appear like so many arguments, says our author, in favor of this opinion. The muscular agitation, the convulsions and contractions do not exist in all cases. Some patients remain motionless without saying a word. The expression of the countenance is anxious, passive, or impressed with profound melancholy. They recover or die without ever having shown any excitement. The author observes that in the numerous cases of acute delirium which have come under his notice, he has never met with complete abolition of the muscular power; general or local paralysis, which all nosographers rank among the symptoms of meningitis or encephalitis, is therefore a rare symptom in this affection.

The disordered sensibility is shown in the high excitement which characterizes all the actions, and in the hallucinations and illusions which often throw the patient into a condition of extreme terror. The fires of hell are blazing about them; devils are dancing around their bed. One young man talked incessantly of persons whom he imagined in a corner of the room, who were drumming in his ears. He cried out incessantly, "The water rises every moment, it has already reached the bed, and I shall soon be drowned." As the disorder increases, this morbid sensibility gradually diminishes,

and finally disappears, but is scarcely ever followed by that oppression and stupor which has been observed in the last stages of meningitis.

A peculiar modification of the emotional sensibility, is the repugnance to liquids which was observed in nearly all the cases met with. The peculiar character of the symptoms already described, is doubtless sufficient to excite special notice, but this symptom is so remarkable, says the author, that it is sufficient of itself to justify the distinction which he has made between this affection and others which resemble it. One can scarcely form an idea, he continues, of the savage energy with which these unfortunate sufferers refuse liquids of any kind. They contract the muscles of the face, shut the lips and teeth convulsively, and with such force that it is impossible to separate them. It is useless to hold the nose — nothing can conquer their opposition, or if they open the mouth for breath, the movement is so quick that it is impossible to introduce the tube, to avoid which, not satisfied with closing the teeth almost convulsively, they turn the head rapidly from side to side without ceasing an instant, and even turn themselves on their faces. During this operation they roll their eyes fearfully, the expression of the countenance is fierce and threatening, and they not unfrequently succeed in biting those who are not sufficiently on their guard.

Under the heads of circulation, nutrition, secretion, the state of the bowels, skin, tongue, &c., we have several pages of description of the physical phenomena of the disease, a few of the most striking of which may be briefly noticed. As might be expected in an affection of such severity as the one under consideration, the circulation could not fail to be seriously affected. In the

first period of the disease, the pulse is frequent and either full or soft. In the second stage, though it continues frequent, it becomes weaker, sometimes small, thready, and even imperceptible. The skin is generally hot, dry and harsh. In the second stage it may be covered with a cold sweat. The skin is sometimes cold from the commencement of the attack, or may be alternately hot and cold. Sometimes it becomes cold suddenly. The nutritive functions are generally entirely suspended. The appetite is not only completely lost, but the patient shows an invincible repugnance to food. Emaciation proceeds rapidly, and those who die are generally reduced to the last degree of wasting. Constipation is a constant attendant on the disease, and to procure alvine discharges it is necessary to have recourse to powerful purgatives in larges doses. The secretions are generally unhealthy. There is an abundant flow of saliva, mixed with bronchial mucus, which the patients spit about them in every direction. The eyes become the seat of a muco-purulent secretion which collects between the lids, and constitutes a striking feature in the assemblage of symptoms which go to make up the disease. Another striking symptom is an abundant secretion of tenacious mucus which collects about the fauces, and is sometimes so adherent as to be got rid of with great difficulty. The breath is generally very offensive, and sometimes has a peculiar acid smell. The tongue inclines to become dry, and the lips and teeth to be covered with sordes. In an affection of so serious a character, it will not appear surprising that sleep is almost unknown. For several days after the commencement of an attack, the patients scarcely sleep at all. After the acute symptoms have somewhat subsided, they rest a

little better, but even then the sleep is scarcely more than lethargy, or a kind of stupor. When sleep continues for several hours and is calm, it may be regarded as an indication of recovery.

The views of the author in regard to the nature and tendencies of the disease, are summed up in the following observations:

When uncomplicated with other cerebral diseases, acute delirium is simply a nervous affection, which is doubtless due to a morbid condition of the cerebral structure, but the nature of this modification is unknown. It is the same with the proximate cause of acute delirium as with those of traumatic delirium, of delirium tremens, of that produced by certain narcotics, and that of sailors, called calenture. They have so far eluded all the researches that have been made. Congestion is only an accessory, it may besides be entirely absent. Supposing even that inflammation always accompanied the nervous disorder, which is by no means the case, it would no more constitute the disease than it does syphilis, cancer, certain exanthems and many other pathological states. It is important to inquire if acute delirium is identical with insanity or is a form of that disorder. The suddenness of the attack, the character of the symptoms and the general aspect of the case are so many answers in the negative; on the other hand, if the etiology, the terminations, and some of the symptoms are considered, we must admit that acute delirium does possess some affinity to certain forms of acute mania. The affection does not always show itself under the same form. It is simple when it presents none of the symptoms proper to other cerebral affections, and when unaccompanied by the fearful symptoms observable in the variety which we

have called *phrenetic hydrophobic delirium*. The simple form is either taciturn or noisy, its duration is very brief, and it terminates in a few days or hours, in general, favorably. Acute delirium may be complicated with meningitis, with meningo-cephalitis, with mania, &c. The diognosis is then beset with many difficulties, but the most fatal, and at the same time most remarkable complication, is that in which it assumes the form of hydrophobic insanity.

Acute delirium has different modes of termination. Recovery is frequent in the simple and sympathetic forms. It is, on the other hand, very rare in the hydrophobic variety. In nine cases of this form, seven proved fatal. Acute delirium may end in meningitis or in acute mania. We have also seen well marked cases terminate in melancholia and suicidal mania, and one case under our care ended in dementia. We have known one patient to become maniacal after having presented symptoms of acute delirium. General paresis of the insane may also be one of its terminations.

When the symptoms are those of the simple form, the prognosis is generally favorable. We have described the case of a lady who kept up a rigorous fast for twelve days, who perfectly recovered. Patients whose attack is owing to the striking in of an exanthem, or of rheumatism, or to derangment of the digestive or biliary functions, commonly recover by suitable treatment, and sometimes even by the unassisted efforts of nature. The prognosis is entirely different when the case is one of acute hydrophobic delirium, and especially if the refusal of liquids has continued for a considerable time. If the excitement, the cries, and the convulsive movements continue for five or six days, the termination

is almost always fatal. A fatal sign which has been noticed in this variety, and which may be compared to the pultaceous exudations which take place in the last moments of other fatal diseases, is a purulent discharge which makes its appearance in the angles of the eyes; almost all the cases which presented this symptom, proved fatal.

It is evident from the foregoing description that the author considers acute delirium to be merely a nervous affection, unattended in its simple form with danger to life, and of course leaving no structural lesions to be discovered after death. Its principal interest, according to this view, consists in its liability to be accompanied by serious cerebral disorders of a congestive or inflammatory character, affecting either the membranes or the substance of the brain, or generally both at the same time, and in the danger to life resulting from this complication. Those of our readers who are familiar with the affection will, perhaps, form their own opinions as to the correctness of the above view, as well as in regard to the treatment recommend by the author as best adapted to the cure of the disease. In regard to bloodletting he says, "The use of this remedy requires great experience, for it may happen that the physician may be misled by the violence of the symptoms and may persist in repeated bleeding. In examining more carefully he will discover that the delirium is caused by chronic meningitis. Frequent bleeding in this case could only have the effect of hastening the termination in dementia or death. In the absence of meningitis it would prolong the convalescence or lead to mental enfeeblement. A tentative bleeding seems proper in acute delirium and

if made with suitable precautions can be attended with no unpleasant consequences."

Among the cases in which blood-letting was highly beneficial, the author mentions that of an old man seventy-two years of age, who for eight days had taken no nourishment, and went into terrible paroxysms whenever he was offered a glass of water. General baths had been used without benefit. His breath was very offensive and emaciation was considerable. The pulse, notwithstanding, was frequent and full. After being bled in the foot his paroxysms subsided, he asked for liquids several times, and testified pleasure in the act of drinking.

A reason which the author urges in favor of blood-letting is, that though it may have no effect on the delirium itself, yet it is useful for combating the congestive symptoms which may suddenly arise, and thus by removing the complications of the malady, prove a useful auxiliary in the treatment. He also recommends leeches to the sides and back of the neck and along the course of the sagittal suture, and to the anus and upper part of the thighs, where there have been suppressed hemorrhoids or obstructed catamenia. He does not think, however, that the affection ought to be treated by indiscriminate bleeding, and has seen many patients recover under the use of baths and purgatives. If there is no improvement after a second bleeding, there is little hope of its proving beneficial. When the disease is connected with the disappearance of an eruption, or of rheumatism, or disorder of the biliary or digestive apparatus, a derivative, revulsive and cooling plan of treatment will sometimes alone be sufficient to restore the patient to reason.

The views entertained by Dr. Calmiel in regard to

the nature of this, as well as of other cerebral disorders, are the result of thirty years patient and laborious research, during which daily dissections and minute microscopic examinations into the nature of the lesions presented, have been his constant employment. These views are embodied in two large volumes on inflammatory diseases of the brain, among which is enumerated the one which forms the subject of the present paper. In his preface the author enters into a consideration of the causes which, in his opinion, have contributed to retard the progress of cerebral pathology. The reflections he has given us in this portion of his work will form a suitable introduction to the selections from the chapter on acute delirium, which we propose to lay before our readers.

"The belief," says the author, "which has become almost traditional, that the whole class of nervous disorders (phrenopathies,) and especially those which are manifested by delirium, can leave no structural change upon the tissue of the organs, appears to exert a most injurious influence upon the study of cerebral diseases. On the contrary, I believe most sincerely that we shall never succeed in throwing even a faint light on the nature of these disorders, until we have continued to examine carefully and for a long time, the brains of those who have succumbed to these affections, and until we have succeeded in placing the therapeutics of these maladies upon the solid foundation of anatomical knowledge.

"Another tradition, almost as widely prevalent, that the classification of nervous affections is based upon no anatomical distinctions, and that our knowledge respecting them must be limited mainly to their functional phenomena, is also attended with consequences equally prejudicial to the progress of nervous pathology. It not only favors a spirit of indolence, always ready to shrink from the least laborious enterprise, but it dampens moreover the ardor of the student by wrongfully persuading him that anatomy has exhausted its efforts on a multitude of difficult questions which it has not even as yet seriously undertaken to examine.

"When one wishes to speak of the maladies of the nervous system, the necessity of giving them names derived from some predominant symptom, or group of symptoms, which may be considered as important, retards equally the advancement of cerebral pathology. By

this means, and by retaining such names as brain-fever, acute delirium, phrenetic mania, muscular paralysis, convulsive attacks, apoplexy spasms, hemiplegia, and numerous other analogous terms, we have succeeded in giving different pictures of one and the same disease, and when at length pathologists have attempted to consider and to investigate the intricacies of the subject, they have nearly always failed to make themselves understood in consequence of regarding it from different points of view."

From the chapter on acute delirium, Vol. I., p. 142, we proceed without further preface to make the following extracts:

"The common type of acute peri-encephalitis, (acute delirium,) agrees with the disorder to which modern physicians have generally applied the name of acute meningitis. It is well known to physicians in its general aspects, but needs still to be studied in its anatomical characters. The disease under consideration is frequently confounded even to this day with acute mania, or with other types of mental disorder which are considered to be functional in their character. It has not been sufficiently studied heretofore, either in respect to the symptoms to which it gives rise, or to the material changes which go to prove its inflammatory character. We cannot avoid, therefore, devoting a few pages to these points.

"We think it proper in the first place to call the attention of pathologists to the following remarks, made a long time ago by Abercrombie: 'Another important modification of the disease,' says this author, 'occurs in an insidious and highly dangerous affection, which I think has been little attended to by writers on the diseases of the brain. It is apt to be mistaken for mania, and in females for a modification of hysteria, and in this manner the dangerous nature of it has sometimes been overlooked until it proved rapidly and unexpectedly fatal. It sometimes commences with depression of spirits, which after a short time passes off very suddenly, and is at once succeeded by an unusual degree of cheerfulness, rapidly followed by maniacal excitement. In other cases the preliminary stages are less remarkable; the affection when it first excites attention being in its more confirmed form. This is in general distinguished by remarkable quickness of manner, rapid, incessant talking, and rambling from one subject to another, with obstinate watchfulness, and a small, frequent pulse. Sometimes there is hallucination, or a conception of persons or things which are not present, but in others this is entirely wanting. The progress of the affection is generally rapid; in some cases it passes into convulsion and coma, but in general it is fatal by a sudden sinking of the vital powers supervening upon the high excitement without coma. The principal morbid appearance is a highly vascular state of the pia mater, sometimes with very slight effusion betwixt it and the arachnoid.'

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"It is indeed true that many physicians, as has been remarked by Abererombie, do not sufficiently study the nature of the material lesions which give rise to such functional disturbances. These are often referred to mania, to hysteria, to melancholia, to intoxication, when they are really due to the existence of changes of an inflammatory character. Hence, it frequently happens that patients are admitted into hospitals for the insane whose excitement and violence assimilate them in some respects to that class who do not really deserve to be so considered. This error is the more easily committed from the fact that functional insanity is almost always accompanied at the outset by a certain amount of febrile reaction, dryness of the tongue and thirst, and by a more or less decided aversion to food. But the progress of a case is different when the mental disturbance and the violence of the delirium are owing to a really inflammatory condition, and if the physician does not in the beginning comprehend the gravity of such a state, he will, a little further on, in most cases, be grievously surprised by the suddenness of a fatal termination. Nevertheless it is not alone to an inflamed condition of *the vessels of the pia mater*, as many think, that the occurrence of acute delirium must be attributed; facts prove that the cortical substance of the brain itself, in cases of this kind, constantly participates in the inflamed condition of the membranes; the name acute peri-encephalitis, is therefore, the most appropriate designation for the disease.

"This affection generally arises under the influence of the same causes which give rise to cerebral congestion, and the different grades of chronic cerebral inflammation with which we shall be occupied hereafter, but this phlegmasia attacks in preference those who indulge freely in the use of intoxicating drinks, and who occasionally exceed the limits of their ordinary potations. The attack frequently coincides with the development of some other acute disease, such as pleurisy, gastritis, typhoid fever, or inflammation of the mucous membranes of the intestines, so as to be sometimes mistaken for an attack of sympathetic delirium. It sometimes, when least expected, attacks with violence those who have previously been the subjects of mental disorder or of cerebral congestion, and who have afterwards presented some degree of difficulty of speech, or some impairment of the mental faculties. The exercise of walking combined with a high temperature and the use of alcoholic stimulants is sufficient to produce it in many cases of individuals predisposed to insanity by hereditary influence, and it is therefore not uncommon as a consequence of public holidays and military reviews.

"When it is possible to procure information respecting the previous condition of the patients attacked with acute peri-encephalitis, it will frequently be found that for some days previous to the attack they had complained of pain in the head, that they were excited or depressed, that they had been unable to sleep or had in spite of their

own efforts been overcome with drowsiness. Many at the same time have lost their appetite for food, and have suffered from pains in the chest, abdomen or extremities. The ushering in of these symptoms is often accompanied with thirst, a quick pulse, and an overwhelming feeling of general oppression and suffering.

"The symptoms which give cause to fear an attack of acute pericencephalitis may appear under different forms. In one form the symptoms are chiefly manifested in a disordered condition of the intellect, of the sensations, and of the voluntary acts, and of the functions of circulation, respiration, and digestion. Some patients are the victims of obstinate insomnia, of morbid petulance and irritability, which they are unable to repress. They are incapable of fixing their attention, are incoherent in their expressions, make use of words without sense or connection, shout and cry without being able to restrain themselves, and without knowing why, and assail with blows in every imaginable way their attendants and friends. They often hear noises which are only imaginary, and perceive objects which terrify them though they have no real existence; the food and drink offered them are rejected in haste as if they had a disagreeable taste or odor. Their lips are dry, the tongue coated and sometimes covered with a brownish fur, the fauces are filled with a tenacious mucus, and when they attempt to drink they swallow with difficulty. Pressure on the epigastrium is painful, the bowels are either constipated or relaxed. The skin is hot, dry, or moistened with perspiration, the pulse is frequent, full or small, and the respiration is irregular. It is almost always necessary to keep patients of this description fastened to the bed.

"In another form the general symptoms are nearly the same as those we have described. The disease manifests itself equally by disorder of the intellect and senses, but the hallucinations and delusions assume more of the character of partial insanity. Many patients of this description have a frightened look. They endeavor to escape from the hands of those who have the care of them as if they were in danger of their lives. They spit constantly as if to rid themselves of poisoned saliva, they oppose the utmost resistance when it is attempted to give them medicine. At night they have no rest; they are beset with voices which threaten them and with strange noises, and in some cases make desperate efforts to throw themselves from the windows of their room or to put themselves to death by every possible means.

"In a third form the disturbance of the intellect and of the sensorial functions presents itself under the same aspect, but is associated with disorder of the motive powers. This disorder may be scarcely perceptible or it may be very striking. It may be evidenced by difficulty of speech, by spasms of the muscles of the face, by jerking of the muscles of the shoulder or of the arm, by an unsteady gait and in a greater degree by an attack of general convulsions. When en-

cephalitis takes this form it is rarely overlooked, still it has sometimes been mistaken for a form of chorea, or for an attack of encephalic congestion.

"The anatomical changes observed by the naked eye in the cranial cavities of those who have died of acute peri-encephalitis are very similar to those which characterize inflammatory congestion of the encephalon. In cases which have proved fatal in from five to eight days there is often found in the cavity of the arachnoid a quantity of bloody or yellowish serum. There is at the same time a slight effusion of serous fluid under the visceral layer of the arachnoid, and large spots of a violet or reddish color almost always conceal, here and there, the tissue of the pia mater, the vessels of which are finely injected or turgid. The pia mater itself is difficult to raise and is easily torn, it is adherent to the cortical substance at many points of the periphery of the hemispheres or of the surface of the cerebellum. The cerebral convolutions appear to be swollen and are closely pressed one against the other — they are dotted in places with little groups of bleeding vascular orifices which resemble spots of ecchymosis. On removing the membranes the convolutions present a rose, red or violet color. Interiorly they are highly colored and present a bloody appearance when they are incised. Blood also escapes at numerous minute points when the white substance is removed by slices. The walls of the lateral ventricles are threaded with vascular expansions and covered with minute granulations, (Sudamina.). The white substance of the corpora striata as well as that of the optic thalami is of a dark color. The cerebellum, the pons Varolii, and the medulla oblongata partake of these changes of color, and are also more or less injected. The cortical portion is of a softer consistence than natural.

"The aid of the microscope will often discover in the fluid taken from the cavity of the arachnoid, pus-like globules or nucleated cells in the process of formation. The same bodies are also found in the pia mater where they are mingled with extravasated blood discs. The middle layer of the superficial cortical substance is remarkable for the number and enlargement of its capillaries. The walls of these vessels are lined in places, and sometimes for considerable lengths, with fine molecular granules of a gray color. Small spherical or oval spots, formed each by eight or ten minute points, are often found in great numbers in portions of the convolutions where the color is the deepest. These punctuated spots appear to be formed by the crowding together of molecular granules. Pus is also sometimes found in the same situation.

"The pus found in the lateral ventricles, generally contains nucleated cells. The vessels of the corpora striata are mostly encrusted with the same granular dust as those of the convolutions, the capillaries of the optic thalami are in the same condition. These two last regions also contain numerous finely pointed spherical spots. The vessels of the cerebellum are generally numerous and confluent, they

are encrusted with granules, chiefly in the neighborhood of the fourth ventricle.

"In describing the volume, the abundance and the accumulation of granular elements which are met with in certain chronic centres of local encephalitis, when the discs appear under the form of spheres with membranes and nuclei fully developed, one might be tempted to ask if the fine molecular granules and little pointed groups so frequently met with in acute peri-encephalitis do really represent important lesions, but it may be remarked in the case of the latter, that the extravasation of fibrinous plasma has only commenced, and that the richness of the granular formations is always proportioned to the abundance of the fibrinous products which have escaped from the circulating vessels; but it is plain that the granules and discs should be much larger in cases of encephalitis of long standing where the tissue of the inflamed portion is dissolved as it were in plasma of a milky appearance. Nevertheless, the presence of the products which appear in acute peri-encephalitis ought to be allowed the same significance as that of the products observed in cases of inflammation which has persisted for months. We incline to believe, moreover, that persevering microscopic examinations will discover in this disease, portions of brain where the granular formations will encroach still further on the walls of the vessels, and on the cerebral substance. Neither ought the importance to be lost sight of which must be attached in cases of this form of encephalitis to the condition of turgescence, of congestion, and of redness of the capillaries of the pia mater and of the nervous substance; for these changes which are generally very decided in this affection, are clearly sufficient of themselves, before even fibrinous exudation and the production of purulent or granular cells has had time to be effected to characterize inflammation in its congestive stage.

"Among the lesions met with in examining the bodies of those who have died of this disease, must be noticed inflammatory redness of the mucous membrane of the stomach and intestines, and inflammation of the pleura or of the pulmonary parenchyma, for the existence of one or several of these centres of inflammation is of very frequent occurrence in this affection, and has given rise to the belief that the delirium, which is really owing to the cerebral affection, is only sympathetic with disease in some other organ. The cerebral disorder may be, in some cases, the last to make its appearance, but it nonetheless represents important structural changes, and it would be a mistake to suppose that it is only the expression of simple functional disturbance purely dynamic in its character.

"The termination of acute peri-encephalitis is often fatal. It ends in death from the third to the eighth, from the eighth to the fifteenth, from the fifteenth to the twenty-fifth day. It sometimes passes into the chronic form about the thirtieth day. When this is the case, the general functional disorders pass off, but the mental disturbance continues and is frequently accompanied with difficulty of pronun-

cephalitis takes this form it is rarely overlooked, still it has sometimes been mistaken for a form of chorea, or for an attack of encephalic congestion.

"The anatomical changes observed by the naked eye in the cranial cavities of those who have died of acute peri-encephalitis are very similar to those which characterize inflammatory congestion of the encephalon. In cases which have proved fatal in from five to eight days there is often found in the cavity of the arachnoid a quantity of bloody or yellowish serum. There is at the same time a slight effusion of serous fluid under the visceral layer of the arachnoid, and large spots of a violet or reddish color almost always conceal, here and there, the tissue of the pia mater, the vessels of which are finely injected or turgid. The pia mater itself is difficult to raise and is easily torn, it is adherent to the cortical substance at many points of the periphery of the hemispheres or of the surface of the cerebellum. The cerebral convolutions appear to be swollen and are closely pressed one against the other — they are dotted in places with little groups of bleeding vascular orifices which resemble spots of ecchymosis. On removing the membranes the convolutions present a rose, red or violet color. Interiorly they are highly colored and present a bloody appearance when they are incised. Blood also escapes at numerous minute points when the white substance is removed by slices. The walls of the lateral ventricles are threaded with vascular expansions and covered with minute granulations, (Sudamina.). The white substance of the corpora striata as well as that of the optic thalami is of a dark color. The cerebellum, the pons Varolii, and the medulla oblongata partake of these changes of color, and are also more or less injected. The cortical portion is of a softer consistence than natural.

"The aid of the microscope will often discover in the fluid taken from the cavity of the arachnoid, pus-like globules or nucleated cells in the process of formation. The same bodies are also found in the pia mater where they are mingled with extravasated blood discs. The middle layer of the superficial cortical substance is remarkable for the number and enlargement of its capillaries. The walls of these vessels are lined in places, and sometimes for considerable lengths, with fine molecular granules of a gray color. Small spherical or oval spots, formed each by eight or ten minute points, are often found in great numbers in portions of the convolutions where the color is the deepest. These punctuated spots appear to be formed by the crowding together of molecular granules. Pus is also sometimes found in the same situation.

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ciation and an unsteady gait in walking, and such patients when sent to hospitals are assigned a place among the paralytic insane. The affection may also give rise to insanity without paralysis.

"The cases in which the disease in its early stages yields to treatment are few. The cures effected after it passes into a state of non-febrile insanity are also few in number. We may indeed consider ourselves fortunate when we succeed in saving those attacked with this disease from a speedy death, and in restoring them to health with their mental faculties and their reason even partially recovered.

"Physicians cannot be to careful not to confound this affection in its milder forms with mania or monomania, for in so doing they might risk the lives of their patients, at first by neglecting the active treatment suited to the inflammatory state, and afterwards by forcing upon them nourishment unsuited to their condition. We shall generally succeed in recognizing the disease by examining carefully the state of the pulse, tongue, skin, &c., of the abdominal viscera, the lungs and pleura, and in noting the condition of the muscular system. If the tongue is moist, the skin cool, the pulse natural, if all the viscera are in a healthy condition, if the pronunciation is distinct, if spasm, trembling or convulsion of the muscular system is absent, we need not greatly fear an acute inflammatory condition of the cerebral substance. But it is always safest to be on our guard against the occurence of such a condition, and prudence at least requires that we should not too hastily subject patients recently attacked with delirium and whose cases are suspicious, to regimen suitable for those who are really insane."

The following extract which forms the conclusion to the chapter on acute-delirium in Dr. Calmeil's work, will show at a glance the principal points of interest in connection with the nature and character of the disease, to which the Doctor wishes to call the attention of his readers:

"1. This malady originates under the influence of the same causes which give rise to congestion and inflammation of the encephalon, whether local or general, acute or chronic.

"2. It is wrong to call it by the name of *acute delirum*, *sympathetic delirium*, *acute mania* or *monomania*, *acute general paralysis*, brain fever, ataxic fever, &c., for it depends upon lesions which are inflammatory in their nature.

"3. It is manifested sometimes by incoherent talking and disorderly conduct, at others by ideas of fear and terror kept up by hallucinations.

"4. Sometimes by delirium, complicated with difficulty of speech, trembling of the lips, subsultus tendinum, unsteadiness of gait, and by convulsive attacks resembling epilepsy.

"5. These symptoms are generally accompanied by dryness of the tongue, lips and teeth, quick pulse, thirst or aversion to food, and by an entire change in the expression of the countenance.

"6. The functions of respiration and digestion are at the same time disordered.

"7. The succession of cerebral symptoms is generally rapid, and their character dangerous.

"8. Acute peri-encephalitis may end in recovery though this is rarely the case.

"9. It is more liable to become chronic, and then takes the name of *incomplete general paralysis, (general paresis of the Insane.)*

"10. Its principal anatomical characters are redness, congestion and enlargement of the capillary vessels of the pia mater, or of the cortical substance of the brain.

"11. To these lesions are sometimes added, serous or sero-sanguinolent effusion into the meshes of the pia mater, serous infiltration and softening of the cortical substance, and the formation either of pus, or of a number of minute pointed spheres, which seem to be the origin of the cells which abound in old centres of chronic encephalic inflammation.

"12. It differs from acute meningo cephalitis in partaking more of the character of inflammatory congéstion, and in a less tendency to the effusion of plasma, and to the production of fibrinous elements, than exists in the former affection; nevertheless, it is of the same nature with it.

"13. It ought to be combated by persevering application of antiphlogistic remedies."

The above extracts will be sufficient to show the difference that exists between the two authors in regard to the nature of the malady they have both so carefully studied. We believe the views of Dr. Brierre are those entertained by most alienists, not only in regard to the nature of acute delirium, but in respect to that of insanity generally, viz., that both of these affections, in their simple, uncomplicated forms, are mere nervous or functional disorders, unconnected with structural disease of the cerebral substance, inflammatory or otherwise, and that these affections are never of themselves dangerous to

life. These nervous or functional disorders are considered to be owing in most cases to sympathy with disease in some distant organ, and the possibility of the cerebral symptoms being due to active disease in the brain itself seems scarcely to be thought of. So firmly fixed indeed are these traditional views spoken of by Dr. Calmeil, that insanity appears to exclude the idea of inflammation, so that in any case that can be fairly set down as one of insanity, anything like congestion or inflammation of the brain is considered as almost out of the question. We do not intend to say that these views are erroneous, but think that the facts and arguments opposed to them by Dr. Calmeil are entitled to great weight, and that they ought not to be allowed to pass without the most careful examination by every one engaged in the care or treatment of the insane.

LEGISLATION ON LUNACY.

BY DR. J. PARIGOT, NEW YORK.

The late Report* of a Committee of the Association of Superintendents of American Institutions for the Insane, is a document of great importance. Some parts of it are correct and luminous, and betray the skilful hand that wrote it, while other portions, we are sorry to say, based upon doubtful or wrong principles, are full of errors. Psychopathists of this part of the world must decide whether they will adopt the whole of it or not.

There was very little, if any, debate on the substance of the Report when it was read, although its importance

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might have deserved more attention; but it seems the Association wished to have it printed first, and laid over for further solemn discussion when every member, (after calm consideration in the retirement of the study,) should be ready for it. Strange to say, by an inexplicable hastiness, some resolutions approving of propositions incompatible with justice and science, were adopted almost unanimously.

Thus the Project of a general law for determining the legal relations of the insane, apparently the result of some understanding of several members of the Association, is a proposed standard for all the Legislatures. Each loyal State of the Union had a representative in the Committee, presided over by Dr. Ray, of Providence, R. I. But we see that several gentlemen in the conversation that took place in Washington, spoke of the report as exclusively the fruit of Dr. Ray's experience.

In Academies, it is often the custom to sign reports without having read them—the reporter's opinion being generally endorsed. We do not know whether this was the case in this instance; however this may be, it will escape no one of us, that in such circumstances it may evince great temerity to criticise and attack a so-called common work of eminent psychopathists, headed by a man of high and deserved reputation in psychopathy and medico-legal science. Nevertheless, in daring to do so we obey the dictates of our conscience. We have no private interest in it, except the welfare of miserable and unfortunate beings. The result of our attack may turn against us. Well, if we are repulsed in a contest against superior forces, as it happened in Europe with our defence of the free-air system of Gheel, we appeal to time to come. Seneca declared a great truth concerning the

inalienable rights of humanity, when he said, *Homo res sacra homini.* Let us have patience, then—everything has its time. Meanwhile, our excuse for the present criticism on the opinions of men whom we respect and admire lies in the three words we adopt for our motto—*Vota vita mea.* In order to ascertain what should be the real social condition of insane persons, we must go back and acknowledge the truth of several principles of psychology and moral philosophy: First, that there exists in us a primitive liberty and a desire for it, inherent to our nature, which remain even when our reason has foundered; secondly, that men possess rights which laws never made nor can destroy; and thirdly, that justice does not take its foundation in man's will, but is found, rooted by the Almighty, in the deepest parts of our conscience.

Therefore it is that justice is said to be a guide for our reason, a rule to ascertain duties, and that it is looked upon, with religion, as the highest point of view from which to consider our individual destiny and that also of humanity.

In its social applications, justice is a moral relation between transactions of men—*Suum cuique.* This principle remains the same in regard to insanity, and such moral relation becomes even more imperious from the fact that disease has deprived a man, temporarily or permanently, of his faculties, and left him at the mercy of others. Therefore let us ask:

1st. Are insane persons, consistently with justice, to be subjects and objects of the unrestricted will and decisions of others?

2d. How far are the insane able to enjoy their inalienable rights of liberty consistently with public security?

3d. Protecting laws having been made for the insane in most countries, is not charity the only restorer of what is deficient or absent in their conscience in order to permit us to assimilate their mode of treatment and of living to that of the community?

And, lastly, are we not bound to respect our own nature in its fallen personality?

These questions we propose to discuss in the review of Dr. Ray's report.

Insanity is a natural fact; its existence and its moral consequences are beyond our power, above our prejudices, and independent of our will and decisions. Public reason and charity have led all civilized nations to promulgate laws for the protection of such sufferers, and the actual cost for the maintenance of the insane poor amounts annually to hundreds of millions. Why is this so? The celebrated Montesquieu gives us the answer when he says that virtue is no onerous burden, since justice to others is but charity to ourselves. Here the terms become almost convertible. Justice and charity must then be considered as the strict relation of moral propriety between conscientious men and those whose conscience is obscured or absent. We are aware that such moral conditions are fulfilled to their greatest extent by the majority of men, and especially by those who have devoted their lives to the infirmity of mind, but, nevertheless, none of us, however virtuous, have a right to reject, or declare it unnecessary, that legal precautions should be taken against possible errors or crimes. Justice, in these particular cases, depends perhaps less upon the height of intelligence than upon the purity of feelings which are immediately placed under the influence of the unwritten laws of our conscience; and in

order to keep our ideal free from material spots, it must be taken care to see how far private interests are associated with opinions.

Several European States have revised and amended their laws on insanity, on account of the progress of medico-legal science; and the comparatively recent French code of laws which has, perhaps, existed only fifty or sixty years, must sooner or later bear great alterations in order to be on a level with the actual state of psychiatry. It is true, a science of facts is never perfect, because the latter are inexhaustible; so, also, our laws will never be perfect; but then, charity, that virtue of virtues, must come and fill up the chasm of our imperfections. Charity it is that makes the free-air system and family life for insane, as practiced in the Belgian system of Gheel, the nearest to perfection. What is, then, the reason why insane persons who, in our infamous poor houses are chained like wild animals, become in Gheel the most tractable patients and inoffensive family boarders? Simply this, that the kind and good country people of the Flemish village respect and love their patients as members of their own family. Many observers of what is going on in Gheel declare that reason alone could not produce such devotion. Far from it. Economy and self-interest would even check its effects. But by permitting nine-tenths of the insane of Gheel to enjoy their liberty, by not subjecting them to arbitrary decisions, and especially by respecting human nature, the Belgian keeper of insane has surpassed the laws that protect them in his own country.

Certainly, reason is unable to solve all difficult questions, and the proof of it we find in the preliminary remarks made in the report. Reason shows the com-

mittee that a great injustice is actually done amongst us to the insane. Reason compares the guarantees which are made in favor of accused and culprits with those hardly granted to persons who are to be deprived of their rights on account only of a diseased state of the mind. If reason could not prompt a satisfactory solution of the case, something above it—devotion to the unfortunates ought to have done it. Here are the words of the report: "Culprits have the advantage of a judicial investigation, conducted according to the strictest forms of legal procedure, with all the safeguards and indulgencies which, by the progress of humanity, have come to be recognized as unquestionable rights; while for the insane, in most instances, it is determined by the arbitrary will of individuals proceeding under none of the ordinary formalities of law and guided by none of its principles." Well, this injustice must cease. Let us unite in our efforts to obtain redress. A method exists, but it requires that we reform our mode of investigation in legal procedure against persons suspected of insanity. Real guarantees required by justice are, first scientific affidavits giving all the proofs necessary for judges or magistrates when they have to declare a person legally insane; and secondly, the double control of medical superintendents of asylums and commissioners of lunacy. Is that so difficult?

There can be no doubt about the necessity of the interference of the law and its officers in such important proceedings. No secondary considerations, as family grief and the necessity of secrecy, can prevent its application when our liberty is at stake. What secrecy is there in a *de lunatico inquirendo* trial before a jury? We assisted, as expert, in such a commission, and we could not per-

ceive the family grief in the attempt to get hold of the property of a man who was afterwards declared sane by the jury. Stuart Mill, in his book on liberty, speaking of eccentric, but rational persons, uses the following language: "There is something both contemptible and frightful in the sort of evidence on which any person can be judicially declared unfit for the management of his affairs—all the minute details of his daily life are pried into—and whatsoever is found which, seen through the medium of the perceiving and describing faculties of the lowest of the low, is laid as evidence before the jury."

The circumstances which require the entering of legal proceedings against the so-called insane are the unequivocal presence of physical and mental symptoms of insanity, and an authentic procedure should only employ two physicians, assisted by a justice or magistrate. All friends of such patients, or in their absence, their neighbors, or the magistrate of the locality, have the right, and it is their duty to call for the application of the protective law. Now, if abuses might take place in this legal procedure, the control that must follow on both documents, and on the mental state of the patient by officers of asylums and commissioners in lunacy, is sure to meet them.

The whole world admits the law of necessity. It is true, also, physical lesions require peculiar methods of cure, which must often unwillingly be followed. But surgeons secure, in most instances, all necessary guarantees against any possible accusation of mal-practice. Why, then, should we, psychopathists, be less careful of our good name, when we must have a greater responsibility than is commonly engaged in general practice? Ordinary patients do not always submit to the prescrip-

tions of medical science, and there are no compulsory means to make them do so. But if we are obliged, and conscientiously authorized, to employ coercive means, are we not bound to possess and be ready to give all possible security of our real spirit of charity on the occasion? Physicians, as it was said of Cæsar's wife, ought to be free of any possible suspicion. We cannot well see how abstract principles are a poor foundation for repressive laws. There is nothing so abstract in facts relating to insanity, and there is no necessity of far-fetched speculations to prevent abuses. For instance, to forbid physicians to have any interest in private asylums to which they direct patients, or the defence made by superintendents or other officers of asylums for suppressing the correspondence of patients with their families or the magistrates, have nothing abstract, &c. Legislators, when concocting laws on insanity, have only to record, without any speculation on their part, all the relations, political, civil and criminal, which may affect the insane; and morality, in relation with these facts, will be sufficient to indicate the legal and protective means for repressive laws. Besides, as insanity is not a creation of our imagination, all injuries or crimes committed against the insane find their repression in all ordinary legislation, and questions of free will in the commission of outrages or crimes by the insane ought to be submitted to grand juries and courts, with full explanations given by experts.

Legislation on insanity has principally for its object, to secure individual liberty against error, ignorance or crime. It promotes the security of the public and the welfare and speedy cure of patients. The sacredness of liberty is also considered in the report as an abstract principle.

We see no abstraction in civil liberty. It is of priceless value to every one, and we desire only more security against the power which society possesses, legitimately, over the insane; for the principle *Hodie mihi cras tibi* requires mutual protection.

It would be a curious, but not a difficult, task, should we be obliged to indicate to the committee the numberless cases of existing evil requiring redress and actually wanting proper laws in our statute books. In return, we should be glad to know how acts of virtuous men could be damaged by such laws under the allegation that it would regulate what may as well be left to the unrestricted action of these persons. We cannot, however, see the difficulties to be feared from laws on lunacy, since honest men will obey them, the more readily that their conscience perfectly agrees with their moral principle; for the rest, those persons who are indifferent to refined feelings, they will obey the law on account of its legal and penal injunctions. Both classes would be honest, but not for the same reason, and the law be thus respected. Laws on insanity might be divided into those relating to the nature of the disease in its various forms, as presenting peculiar legal relations in social life, and those having for their object to regulate or give sanction to the existence of public and private institutions. What a benefit for humanity, if a law was passed on the necessary conditions to be required from any house receiving insane patients that would annihilate the dens of poor-houses in which the insane are shamefully and atrociously abandoned.

Next comes the proper registration of the insane in asylums and the legal enactments by which any insane persons might be returned to their friends, cured or not,

or discharged after recovery. One of these laws would give power to courts of justice to inquire into the state and treatment of patients confined in their own houses or in those of their friends and relations. Ultimately, laws should provide for the care and maintenance of the insane poor, and see that a sufficient part of the fortune of rich patients should be employed for their benefit.

No superintendent of a public or private asylum can have good reasons to show why their institutions should be exempt from inspection of the representatives of the law; and in this respect the law is right to make no difference between State asylums, corporate institutions, religious asylums, or private enterprises. It has only in view the benefit of patients; public institutions maintained by the money of the people ought to be the first to submit to it, and show, with pride, all the conditions prepared for a good and complete treatment of insanity. Private asylums ought to obtain license to receive a certain number of patients, according to the facilities they could offer for that purpose; any contravention to laws would forfeit the license.

The registration of patients, whatever be their fortune or rank, is most beneficial for their liberty, security and welfare. Such a regulation requires medical affidavits containing all the physical and moral symptoms of the disease, followed by its diagnosis and prognosis. It settles, to the general satisfaction, the question whether the person is or is not insane. Next it tells what kind of lesion exists, and declares its probable issue. No one can deny that such regulations would promote a speedy cure. In one word, registration of the insane puts to nought all the accumulated difficulties contained in several pages of the report under consideration, and

destroys its conclusion that "special legislation for the class of insane who are able to control the manifestations of disease and conceal their insanity, or for another class in whom the manifestations are not very demonstrative, or are such as may pass for eccentricity or strong peculiarity," is out of question, because it would first have to be authoritatively settled that the patient is one of their class. The *quod demonstrandum* is in all these cases the scientific affidavit.

The laws on insanity nowhere require numerous formalities of a real public character. In the countries where those laws are strictly obeyed, affidavits of two physicians and the decision of a magistrate or of a court are sufficient. Courts even do not proclaim such decisions in public; they are given in the acts of the court in its council chamber. Thus such acts are authentic without a character of publicity that could injure any right feeling about it. Morally, the sensitiveness of friends and the sacredness of their grief cannot be taken to account when it materially prejudices the interest of the patient himself. False pride and egotism have often, in our experience, done more harm than the legal acknowledgment of insanity. I hear people speaking of secrecy, and I never knew a case which was not secretly divulged by friends, relations and servants. The false idea that there is more shame to be diseased in the head than in any other part of the body is gradually vanishing. Do we not see sympathetic insanity to be a disease of some other organ than the brain? In our opinion, registration in private books of asylums, connected with detailed case books, are the *sine qua non* condition of a well managed institution. Is it, then, right to call all these improvements public exposure?

We perfectly agree with the report that physicians are ultimately the judges whether a person is a fit subject for isolation or not; but to a certain degree they remain responsible agents in this case; their affidavits are probative documents, by the conclusions of which courts or magistrates may decide. Nevertheless, magistrates are not under any obligation; they may reject affidavits as insufficient or doubtful, and name experts in whom they place more confidence. By a very good regulation of European asylums, affidavits must be registered on the entry books, and the superintendents are obliged, under their responsibility, to describe also all the symptoms presented by the accepted patient during the first five days of entrance, so that it becomes a legal ratification or rejection of the affidavits. If the case necessitates further control, the interference of commissioners of lunacy, who are generally taken amonst the best superintendents and juris-consults, settles the difficulty which thus finds its legal solution.

I think it useless to state that cases of real false imprisonment are exceedingly rare; still they are sometimes heard of, as well in America, as in the countries of Europe. Numerous lawsuits for malpractice have been instituted against psychopathists and superintendents, some of whom have been found guilty. Cases of diastrephia or moral insanity, monomania, hysteria, dipsomania, are the frequent occasions for such trials, and it has often been the case that the only fault of physicians was an insufficient or inaccurate description of symptoms at the time of isolation. Lately, three well known and now especially respected physicians, were unjustly condemned to twenty years prison in Spain, under the charge of malicious imprisonment of a lady, Dona

Lagrera. The causes of that judicial error were some looseness and inaccuracy of terms employed in affidavits, and the ignorance of psychiatric medicine in the Academy of Valencia, which had been consulted by the court.

The necessity of thoroughly complete and descriptive affidavits is patent, for the security of both patients and their physicians. There is no beginner in psychopathy who, after a few months residence in an asylum, will not be convinced of the reform that ought to take place in this respect. Routine, of course, will object to it; ignorance and laziness will oppose it. Is there any thing more easy, some people will say, than to declare a person insane and fit for isolation by these simple words:

"I hereby certify, that I have seen and examined , of , *and believe* him (or her) to be insane. Dated , ——M. D."

Such affidavits are the shame of the profession, and a mockery and contempt of justice. What! disfranchise a man upon an affidavit which omits the physical and mental symptoms, and ignores the diagnosis and prognosis of the disease? The remedy for this evil has been heretofore in the skill and honesty of the medical officers of asylums, but sometimes they themselves have been victims of such inaccuracies.

We are confident that proper affidavits and registration under the responsibility of superintendents of public or private asylums, and finally, the control of commissioners, (legal and medical,) would answer satisfactorily the several pages of the report concerning the legal difficulties of isolation. But, it may be asked, would it not be useless to try to satisfy every body that in certain cases personal liberty has suffered no injury? We reply, when the law has been satisfied, it is evident no one has the right to doubt.

The report says, with reason, that in some cases "the writ of habeas corpus would be all sufficient for the purpose, but being attended with circumstances that all the parties might wish to avoid, it would be well to furnish another provision, equally effectual, while free from unnecessary parade and publicity in the nature of an inquisition." In consequence, the report speaks of a commission in lunacy, but, at the same time, denies the proper qualities to such commissioners. How can this be logic? Was not Dr. Jarvis, of Boston, an able commissioner in lunacy? Do we not read in the public papers that some superintendents of State asylums honorably exercise the functions of commissioner in lunacy, in many trials involving even the conviction and execution of criminals? In Europe there is not a psychopathist who does not know the reports of the commissioners in lunacy of Massachusetts, and consider them as standard specimens of science, accuracy and truth.

The most extraordinary assertion is the following, from the 34th page of the report: "If it is to be considered a part of the duty of the commissioner's office to visit the hospitals of the State, and investigate the case of every patient who complains of being unjustly confined, one can scarcely exaggerate the amount of mischief they would accomplish; and if, among the scores of cases, they should happen to find *one* unjustly detained, the service thus rendered would be dearly purchased by the restlessness and disappointment to which all the rest would be subjected."

We beg to differ completely from this assertion. Truth can never be too dear! Should such a case happen it would give hope of recovery to scores. It is remarkable that routine leads us to consider asylums as if they were

something like the *in pace* of Catholic convents, where people were absolutely out of sight and hearing. The, so-called, mischief done by commissioners should be—1st. To have represented the protective law before prisoners. 2d. To be living habeas corpuses, possessing the quality of giving no fear of public exposure. 3d. To satisfy that natural desire of prisoners for obtaining their liberty—and it is no small event for them to see, once in a while, sympathizing hearers of their real or imaginary complaints. 4th. The rare chance of liberating a case of unjust isolation. But all these benefits are the proper end of justice and charity. For our part, having practically seen their effect, we consider those appeals for liberty, and those efforts to appear reasonable, as most precious mental conditions to promote recovery; and we have often, after a long stay in wards of asylums, been compelled to say in our conscience, woe to those who have lost all hope of liberty; woe to those pale and inanimated patients who feel no interest in their condition.

The point of view taken by the superintendents who made part of that committee, is very curious. They suppose that they may be, at the same time, legal officers, explaining and applying the laws of lunacy; medical officers, having the supreme moral direction of their institution; and lastly, supervisors and controllers of their own doings. Some will answer, our trustees are our supervisors. Very well, that may be the case, but we know practically, that it is only the exception; generally, trustees occupy themselves much more with the material concerns of an asylum than with the rest. If the trustees are numerous and unoccupied in society, they will generally take to themselves the whole management of the asylum, and reduce medical officers to the con-

dition of secondary servants. If the trustees are less in number and remain long in office, there is a constant and gradual lack in their control. Trustees, like other mortals, are liable to errors and weaknesses of a social and domestic nature. Sometimes, even, their contact with the medical officers not only makes them intimate friends, but relatives by affinity. What, then, can be the living and continual principle of action in asylums if not the commissioners, who come there in the name of the laws and of the millions to encourage every one to do his duty?

Because no reproach can be justly made against medical officers of American asylums, there is no reason why we should not have the legal guarantee that evil could not be done, or grave errors practiced by inadvertence. These guarantees would only augment their general good name. Why, then, does the committee, in every line almost of the report, make constant efforts to repulse a necessary reform? Speaking of the psychiatric practice of England, it is said that, on account of prejudices, the isolation of the insane is regarded with the most watchful jealousy, and surrounded by all sorts of difficulties, to deter the friends from resorting to it. Patients are thus kept at home long after they should have been sent to an hospital, and discharged from hospitals long before their recovery is complete, lest the absence of the most demonstrative signs might lead the outside authorities to discharge them, and thus expose the physician to public censure, if not to harassing lawsuits. We answer all these objections by a few words. If the North American States and Great Britain had good laws on insanity, the links between the affidavits, the daily reports in acute cases, the weekly reports in chronic cases, and the therapeutical case books in which the precedents, symptoms

demonstrative at first and gradually less so in the progress towards cure, or else its chronic tendencies should be carefully delineated, then all these bugbears would vanish, and a sound reality in form of therapeutical annotations, remain for superintendents to act upon, without fear or remorse.

We know that until a reform be made it will not be so. Timerous men will not dare to act conscientiously, from fear of exposure. We have repeated also hundreds of times, in pamphlets and medical papers, that staffs of medical officers of asylums are insufficient. Some will inquire, how is it possible to keep all these books and examine, each of us, perhaps two hundred patients, and sometimes many more? Are you not aware that various duties oblige nearly all superintendents to be out of the asylum most of the time? We know these difficulties, and in order to see patients and medical officers benefited, we wish, ardently, that each physician should have only fifty patients in his charge; then every one, and especially the superintendent, would possess a good base to act upon and fix his decisions. It is clear, that in such conditions, outside authorities or friends would have nothing to say against facts, especially when a responsible officer would ground his decisions on science and the commands of the law.

The report, speaking of diastrephic cases in which homicides were committed because unrecovered patients had been set free, says, "a man much familiar with insanity would have said, 'I am satisfied that these are dangerous men; with my knowledge of the insane I have reason to fear that they will commit some act of violence.'" Well, this is the very sort of affidavit the law should object to, and in courts such language of experts

would be extremely injudicious, for it might be said to them, you are not placed here as a juryman, who has only his conscience for judge: your special knowledge is the result of your studies and experience, therefore, it is your duty to satisfy us, magistrates, judges, or jurymen, that this case is one of insanity. Please to give or explain on what your assertions are founded.

We must suppose that the representative of the law being satisfied, the public, even that poor public which looks for its convictions to novels and magazines, would not any more give its ear to sensation novels, with their tales of abuse, violence and crime committed in asylums, as piled up in VERY HARD CASH. But why have some of these tales the appearance of truth? On what are their intrigues based? On the very absence of good laws regulating the admission and the liberation of patients from asylums; on the absurd affidavits, on the circumlocution of governmental offices, and so on. If we oppose reform, we must not complain of the injustice with which our devotion is repaid by vulgar people. In republics and constitutional governments, the interference of the law is justified in all cases of insanity, for rich or poor, high or low; every citizen is equal before the law, and nothing goes above it. No difference must exist in the means afforded by science to cure such patients, let the sufferer be a poor or rich man, a senator or an humble journeyman. Therefore, the first condition to the organization of State or corporate asylums, religious institutions, poor-houses, or private asylums, should be the guarantee that the moral and material treatment of a relative number of patients is possible. Such conditional requirement would close at once the horrible dens of the insane in our poor-houses. Nor should even private families be allowed to

keep an insane parent in restraint at home, unless licensed to do so, under the control of the commissioners.

A very desirable object for justice, for the dignity of courts, and especially for the reputation of judges, would be the legal injunction that real experts, i. e. specialists in psychopathy, actual or late officers of asylums, should should always be consulted, when required by the nature of the case, and thus prevent those, sometimes, absurd expositions on diseases which certainly belong not to the department of the juris-consult. In proof of such necessity, we would refer persons who doubt, to the consultations given by the bench of judges in the House of Lords in England.

The question of the liberation of diastrephic cases, in which the patients are apparently recovered, ought only to take place upon some conditions of surveillance. Practical psychopathists are aware of the very peculiar effect that surveillance has on insane persons who are subject more or less periodically to homicidal impulses.

It would be very difficult to discuss, in a few lines, the important question of the responsibility of lunatics. This matter is treated with great ability in the report. However, we must remark that, if the principle that no person shall be deemed guilty of a crime who was insane when it was committed—be admitted—we do not see how insanity should not necessarily, in each and every case, annul responsibility. How is the contrary to be demonstrated, i. e., that the lunatic, when perpetrating a criminal act, was not under the influence of his disease or connected in any way with it? The unity and solidarity of the mind will always be a great objection, and it will be difficult to prove that free will may have sometimes a degree of impotency, and on other occasions

strength, in the same individual, who, by the fact of his insanity, is unable to raise such moral power. In case of doubt, who dare punish? Punishment of the insane is purely vindictive, as there can be no reformation.

We agree with the report, that a law should give power to courts to order any provision for ascertaining the mental state of accused persons. Experts should have them under charge in public asylums, and experts, called by the defence, should have free access to them.

To the profound opinions of the report, concerning the legal consequences of insanity, we need hardly add that, in case of wills, courts have often decided upon their validity according to the moral value of the acts performed. Thus insanity should vitiate every civil act except when the act or transaction should, in itself, be the expression of just and equitable ideas or facts. Evidently, the consequences of nocive acts fall on the perpetrator, even the insane, or on the persons who have charge of him. Thus chattels and goods of the insane are liable to pay damages, and as such person may, in consequence, become indigent, his further maintenance falls on public charity. We believe that in all legal procedure, where the law or courts require serving of notices, sending summons, reading writs, all these might be done through the legal guardian or the superintendent, or any medical officer of the public or private asylum in which the insane person is placed. It appears useless to repeat that any authority, either municipal, county, or State, is empowered to isolate any one dangerously insane, let him be rich or poor. Such authority ought to be compulsory, since any crime or outrage, committed by lunatics at large, might, in certain circumstances, cause suits at law for neglect of duty; and that such is the case, is seen in many of those

appalling outrages frequently recorded in newspapers. To this end, a sufficient number of institutions should be always ready for such a purpose, but, unfortunately, most of the asylums are inaccessible from the quantity of chronic cases they contain. For such purposes free colonies, that may at any time, like that at Gheel, admit hundreds of patients, would answer. When we came here with a view of establishing such institutions, many physicians remarked that the American people would never be willing to become keepers like those of Gheel. The same sort of objection was made by French authors of great reputation. The Medico-Psychological Society of France decided that such institutions would never do amongst French people. Nevertheless, the council of hospitals of Paris, and a sort of provincial legislature, the *conseil general* of Lyons adopted such a plan, and it was sanctioned by the Imperial Government. We have lately visited about sixteen of our Northern States, and we are convinced of the practicability of such a plan here. It would even succeed here better than any where else, on account of the great extension of uncultivated lands. Free colonies will be established later, when the necessity will be felt to relieve a greater number of patients at a less expense, and to make them happier than they can be under the existing system.

Asylums for insane convicts, and those for inebriates, have already shown their usefulness and convenience. The discharge of such patients is sometimes very objectionable, since homicides and other outrages have often been committed by periodically insane patients. In all such cases it ought to be done authentically by the committing authority; and here again such decision ought only to be obtained by legal documents, emanating

from medical officers who would declare that such dangerous persons have recovered the use of their faculties, and decide under what circumstances they might have their freedom. Upon the principle, that an insane person can be isolated because he may be dangerous to himself or to others, it follows that such person cannot be released before his recovery is complete, and certified to by the superintendent of the asylum where he was placed. But as it may happen that the family or friends who support such person, may desire that he may be changed from the asylum, such transfer ought only to be permitted upon an order from the committing authority. It has effectively happened that such pretext of change was brought forward in order to escape the provision of the law.

We believe there is a great injustice done to a certain part of the public and to private asylums, by the admission of paying patients to State and corporate institutions. These latter, got up by public bounty and charity, ought not to be the means of an unfair competition. The only positive inequality in social life springs from education. For this reason, we understand how honorable families would be better served if, for the same price, they could find private institutions in which they could enjoy habits and manners congenial to their mode of living. State, county, and corporate institutions belong to the poor of the State, counties, and cities; why should their means of support be divided with more fortunate patients? Besides, it promotes a spirit of stinginess, already too conspicuous in the disposal of those insane persons who might enjoy all the luxuries of a comfortable life and be surrounded by the best attendants, but who are sometimes hurled into a ward amongst unfor-

tunates of all classes of society. We must not conceal the fact that, by many, the expenses caused by insanity are considered as a burden, and that a large number of wealthy people will, through the most despicable cupidity, select the cheapest asylums for their insane. There is, then, no wonder at the very limited number of private institutions. How could they stand such competition and have a sufficient number of patients to outbid the advantages presented by the former? But if the idea of profit is the motive of trustees in admitting several classes of patients, how, in such institutions, must the poor lunatic who is only an object of charity be regarded?

The report terminates by very judicious considerations how the law should provide for the guardianship of the insane in several States. Commissions are issued generally by Courts of Common Pleas or Supreme Courts, and juries usually settle such questions.

If we consider the *ensemble* of the report, we are struck, by its real merit, when *pro domo* considerations do not obscure its brilliancy.

Of course, we could not adopt the Project which follows the report, for a general law for determining the legal relations of the insane. We think such project ought to be studied, not only by the members of the Association, but that this scientific body ought to call to its assistance eminent lawyers and savants in the highest branches of philosophy. The absolute necessity that it should be admitted by all Legislatures is evident. How could regulations and laws, binding citizens in one State, be carried into effect, when the patient would, on purpose, have been transferred to a State in which sometimes opposite laws should be in force?

Twenty-one articles for such a law are very limited,

considering all the relations of insanity in social life. In spite of our inadequacy to the subject, if health and leisure will permit, we intend to bring our humble stone to that useful monument, especially by studying what has been done in foreign countries.

P. S.—Many of our remarks apply sometimes to foreign asylums. The reader will judge whether they fit ours.

CASE OF PELLAGRA OF THE INSANE.*

BY DR. JOHN P. GRAY.

James I. Fish, aged 31, is a man of medium size, bilious temperament, good physical development, and average mental capacities. He enjoyed health during childhood and adolescence, and his mind was regular and normal in its actions.

About four years prior to his admission, he suffered from an attack of acute rheumatism, and ever since he has complained, more or less, of pain in the back of his head, in his shoulders, and in his back. Shortly after this attack he also began to complain of weakness in his arms, and of a general feeling of lassitude and enfeeblement. Symptoms of indigestion and defective innervation also set in. He thought he had "disease of the liver," and accordingly procured sundry *nostrums* from a neighboring grocer, which "were sure to cure such diseases."

*Read at the meeting of the Association of Medical Superintendents of American Institutions for the Insane, held at Washington, D. C., May, 1864.

They, however, availed him not; for the symptoms continued. His appetite became very capricious. He drank large potations of water. He neglected his work, walking about the neighborhood and busying himself with the private concerns of his fellows. He sold his farm below its real value, and took bad security for that which he did realize; and soon after manifested a great deal of anxiety about this transaction. He thought he had lost all his property foolishly, and in consequence should come to want. He began to counsel his friends against certain of his neighbors, whom he suspected of robbery and of intentions to poison him and his friends. Leaving his home, under the impression that he was pursued by enemies, he wandered about the neighboring wood for ten days, after which he returned to the house of a brother, very much exhausted and emaciated, having in all probability eaten little or nothing during his absence. He was now suspicious, depressed, taciturn, restless, and anxious to flee his enemies—*melancholia*. In this condition he was brought to the asylum, September 10th, 1863. Soon after his admission his hands and face were observed to be unnaturally red. He complained of cold hands and feet, and when permitted, would constantly stand near a window, and expose himself to the sun, in order to warm himself. A close inspection of the body discovered a scaly or squamous eruption, analogous to ichthyosis, extending over the whole of his face, over his arms from the elbows downwards, and over his legs from the knees down.

His bowels were very irregular. On admission they were costive; but as soon as the skin disease began to develop, diarrhea set in. In the course of a few weeks, his face deepened in hue, and began to swell. His con-

junctivæ became suffused and injected, and he complained of intense pain in the back of his head, and asserted that his enemies were driving red-hot nails into his head.

At the same time, his hands and feet began to swell, and the skin became of a dark purple color, glistening in appearance and parchment-like in feeling. In several places the skin was cracked. In other places, again, vesicles formed, which, when opened, exuded a yellowish white serum.

As the hands and feet, (the skin and subintegumental tissue only,) continued to swell, deepen in color, crack, and form vesicles, the squamæ of the face and extremities also increased. These squamæ corresponded in shape to the linear markings of the skin, and they came out and dropped off in the course of three or four days, being replaced by a new crop.

There was intense itching of all the diseased surface, and he complained of a burning heat in his hands and feet, and when permitted, soaked them in water. All his joints appeared stiffened, so that any motion he was called upon to perform, such as eating, walking about, dressing and undressing, seemed to give him intense pain. The joints of the fingers were so stiff, that when bent they would spring back with a snap, causing the most excruciating pain. Much of this stiffness was probably due to the swelling and infiltration of the skin and areolar tissue.

He was treated with Fowler's solution internally, emollient embrocations locally, and plenty of good nourishment. Under this treatment he has gradually improved. The scales have nearly all fallen off, the swelling of the hands and feet has subsided, the vesicles have

disappeared, the fissures have closed; but the dark purple color of the skin of his hands and feet remains.

This I am led to regard as a case of that disease known as "pellagra of the insane."

So far as my reading extends, I am inclined to think that the nosology and etiology of this disease, are yet far from settled.

M. Roussel, in his treatise on pellagra, considers it as a skin disease, and has ranked it with cutaneous and cachectic disorders. M. Billod, in a paper, of which an abstract appeared in the sixteenth volume of the JOURNAL OF INSANITY, has classed it among nervous affections. The former gentleman has attributed the disease to the use of maize. The latter looks upon it as a symptom peculiar to some cases of insanity. Other writers have expressed the opinion that it was caused by long continued exposure to the sun.

The person whose case I have detailed, had never eaten maize to any extent, and did not expose himself to the sun until after the disease had began to be developed.

The intimate relation obtaining between the condition of the bowels, the mental manifestations, and the cutaneous affection, is worthy of note. They arose simultaneously, developed and advanced, *pari passu*, to a certain crisis, and again subsided in the same manner.

Since improvement has commenced, his bowels are inclined to constipation; and on three several occasions, where his bowels remained unmoved for three or four days, I have noticed the redness of the face and hands reäppear, and the gloom and suspicion to approach, and the scales to form; but they have again all subsided, after the administration of an aperient. He is now in

good flesh, and comparitively free from delusions. Yet the dark color of the skin of his face and hands remains.*

In the October number of the *Journal of Mental Science*, will be found a description of some fifteen cases of supposed pellagra, in the practice of Dr. De Wolfe, of the Provincial Lunatic Asylum of Nova Scotia. He regarded it as an epidemic. Yet, as the symptoms differed materially from those described by French writers, he was led to explain this difference by the difference of climate and circumstances. This I am led to doubt since observing the well marked case above detailed.

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2. Reports of the Board of Visitors, Trustees, Treasurer, and Superintendent of the New Hampshire Asylum for the Insane, June Session, 1863.
3. Thirty-First Annual Report of the Trustees of the State Lunatic Hospital at Worcester, Mass., October, 1863.
4. Eighth Annual Report of the Trustees of the State Lunatic Hospital at Northampton, Mass., October, 1863.

* October, 1864. Since the above was written, there has been no return of pellagrous symptoms, until within a few days past. Within this latter period, the reappearance of the disorder has manifested itself by squamæ upon the arms, elbows, and knees, by swelling and stiffness of the fingers, by emaciation, and mentally, by the accession of hypochondriacal tendencies.

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13. Annual Report of the Resident Physician of the Kings County Lunatic Asylum, for the year ending July 31, 1863.
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15. Report of the Pennsylvania Hospital for the Insane, for the year 1863.

1. From the report of the Trustees of the Maine Insane Hospital, we learn that the year opened with 238 patients; that 118 were admitted, and 111 were removed. In consequence of the rise in prices, the rates of board have been increased to $2.75 per week. For the sanitary condition and internal management of the hospital, the Trustees refer us to the report of their "highly esteemed Superintendent." This gentleman (Dr. Harlow,) gives the "apparent condition" of the discharged patients as follows: 52 recovered; 21 improved; 14 un-

improved; 24 died. In his mention of the deceased patients, most of which were old chronic cases, the Doctor grows tender and eloquent. Our readers will thank us for reproducing here, the following rhetorical gem:

"Life to them had ceased to flow along its accustomed channel, in the light of day beneath the open sky, but ran

'Through caverns measureless to man,
Down to the sunless sea.'

Often had the troubled soul striven to emerge from the 'briny tide,' till faint and weary of the strife, it gushed through the 'font of death,' rising above cankered disease—the saddest of mysteries, and passed to the realm of eternal rest."

There were fewer admissions to the Maine Hospital in 1862 and 1863 than during any equal period for ten years previous. Dr. Harlow finds a possible reason for this "in the new and unusual occupation which has so thoroughly possessed the American mind since 1861," and in the awakening of "that wholesome principle in man, the love of country." He dwells upon ill-health as a prominent cause of insanity; alludes to the facts brought to light by the examinations of our army surgeons, and fears that "we are, as a race, in an alarming condition." He dilates upon the prevalent use and pernicious effects of stimulants and narcotics. The need of a humane spirit and right moral influence in the care of the insane is expressed in the passage noted below. Though it may require a nimble imagination to follow the Doctor's figurative conceptions, we commend his thought to all intrusted with the management of the insane:

"The fettered mind, bound by physical disease, needs the most gentle touch that the finger of sympathy can impart to light the veil and win it back to its normal wonted channel, where the streams of thought may flow unclogged to the ocean of reason. Every portal leading to the inner soul, prostrated by disease, should be draped with all that is delicate and fine, that each reporter may convey

nought that will irritate or harm a single fibril of that which makes us rational and immortal."

2. The admissions to the New Hampshire Asylum were 105, and the discharges 92. Of the latter, 36 had recovered; 16 improved; 17 unimproved; and 23 died. The chief point presented in Dr. Bancroft's report is the necessity of hospital treatment in the early development of mental disease. We reluctantly adopt the opinion that his appeal to the public will produce but little good. Repeatedly, of late years, have asylum superintendents urged this matter with all the force its importance demands. The futility of their efforts in this direction is seen in the gradually increasing number of the incurably insane seeking admission to the hospitals. The annual report, it is true, reaches only a comparatively small portion of the community, but the great mistake lies in supposing the general public capable of appreciating the medical fact presented, and in attempting to form an "enlightened public opinion," when, from the nature of things, such illumination is impossible. The root of the evil complained of lies in the defective education of the general profession. Mental pathology constitutes no part of the medical curriculum. Hence the ordinary practitioner fails to recognize insanity in its inceptive stage, or to appreciate the true significance of the somatic symptoms, and is led to a temporizing or baneful course of treatment which exhausts the most auspicious period for recovery, and operates to confirm the disease.

3. The Massachusetts State Hospital, at Worcester, began the year with 396 patients. During the year 215 were admitted. In 182 discharges for the same period,

104 were recovered; 66 improved; 12 unimproved, and 30 died.

The report of the Trustees of this establishment usually stands in overshadowing relation to that of its superintendent, forming, in this respect, a striking contrast to reports of other American asylums. Five members constitute the Board of Trustees; of these, two are laymen and three are physicians, among whom is Dr. Edward Jarvis, of Dorchester. The name of the latter is a sufficient index to the able character of the annual reports, whether discussing matters of financial and temporal concern to the asylum, or grappling with the more vexed questions of mental pathology.

The Trustees' report presents an admirable analysis of the varied (moral) management necessary in the treatment of the insane. It is a matter of regret, however, that such excellent conclusions should be based upon such fallacious premises as are included in the following:

"Of the manifold mental and moral, as well as physical elements, that enter into and compose the human being, any one, any number, or even all, may be disordered; they may be all equally diseased, or in any variety of degree or combination; and to this extent, and in that form and manner, the man, the possessor of these elements, is insane; otherwise he may be sane."

Here we have revived the old theory of the phrenologists, which considers each faculty or "element" of the mind a separate entity, and subject, as such, to diseased action. The brain is viewed as a congeries of organs, each the residence of some independent faculty, rather than as an unit, the instrument of an indivisible mind. The tendency of such a view of the subject is to constitute a disease of a symptom, a special pathological entity from a single morbid manifestation. It is sufficient here to repeat the words of Dr. Ferguson

in regard to those who promulgate such a theory. "They have not induced any metaphysician of note to adopt the metaphysical portion, nor any anatomist of name to adopt the anatomical portion of their system." From these erroneous notions have issued the brood of monomanias to darken the atmosphere of science, and blind us as to the true physiological basis of mental pathology. By the supporters thereof undue prominence is given to moral means in the treatment of mental disorders. Now, while we would be the last to deprecate moral therapeutics in maladies of the mind, we are forced to regard them as of secondary importance, and to view them rather in the light of necessary conditions to the success of medical therapeutics.

We see another natural effect of this system of philosophy in the assumed divisibility of the feelings from the other phenomena of consciousness, the separation of the emotional from the intellectual states. This is exemplified in the following paragraph:

"Parents become insane, suspicious, accusatory, quarrelsome in respect to their children, and children in respect to their parents. Husbands become insane, and morbidly suspicious in reference to their wives, and wives in reference to their husbands; their minds are sometimes disordered in relation to certain others, to friends, acquaintances, even strangers. In regard to those who are the subjects of these diseased suspicions, fears, aversions, or undue confidence, the emotions take precedence of observation and reason, and become the foundation of all other ideas. The lunatic first suspects or confides, hates or loves, and then his excited imagination invents, shapes, measures, or colors facts to suit and substantiate the preconceived opinion, and the subordinated reason moulds the whole to harmonize with morbid feeling; while, in regard to other persons, these disordered men and women may be entirely sane."

As undue prominence is given to moral treatment, so in the opinion of the Trustees, moral agencies are conspicuous in the causation of insanity. In view of the fact that in the Superintendent's table of the causes of

attack in 215 patients admitted during the year, but 24 are ascribed to moral agencies, and of these 8 are recorded from disappointment in love, the absurdity of the following statement becomes apparent:

"Some are insane only in certain circumstances, or in certain associations, or places, but are elsewhere sane. Many are insane at home, but are sound when abroad. Some are insane as to certain persons, but not in reference to others.

* * * * * "Certain ideas, places and associations disturb and craze some, who, elsewhere, and in other connections, and with other subjects, are calm, clear-minded, and able to direct their moral and mental powers with discipline, to the ordinary course of thought, and the usual affairs of life."

Having entered our protest against the false philosophy embodied in this report—a philosophy which, from the sundry sound principles subsequently enunciated, we are disposed to regard as nourished in the library, but ignored in the wards, we conclude our notice with the following interesting cases illustrative of moral treatment:

"One patient, whose disordered or unbalanced mind would not allow him to live, nor to conduct himself as other men at home, nor enable him to manage his affairs with discretion, was placed under the guardianship of the hospital. Dr. Bemis soon saw his weakness and his remaining power, and advised him to resume his ordinary business, that of an itinerant pedler in Worcester and its vicinity, but to return to the hospital for his meals, and at night. By this aid, keeping himself responsible to the hospital managers for his propriety of conduct, and reporting himself thus frequently, he gained power over himself, week by week, and at length recovered and went to his home, and engaged in his accustomed business there.

"Another was a mechanic, with similar disability from mental disorder, and in similar need of the hospital influence; yet, with a similar power of self-management, when aided by the supervisory watchfulness of the physicians of the institution. He went daily abroad, and worked in the shops and among the people of the city, but ate and slept in the hospital, and, after months of this limited but effective guardianship, he regained his mental health and returned to his home.

"One patient, a male, has daily worked in the neighborhood at such employment as he could procure, receiving his wages at night,

and has placed in one of the savings banks about one hundred dollars, the result of his labors. He is still insane, and unable to live at home, but with the care and control of the hospital, he gets along without trouble.

"Three of the patients who had been accustomed to light labor when in health, have, during a part of the year, worked in stores in the city, waiting behind the counters, or carrying out goods daily, and returning to the hospital for their meals, and at night to sleep, and only by frequent trials were they able to break up their connection with the institution. At first taking their meals away, and at last sleeping at home, and finally becoming so well as to be discharged from all custody and care."

4. The Massachusetts Hospital at Northampton received during the year 137 patients and discharged 60. Twenty-six died. The condition of the 60 discharged is not stated.

Dr. Prince points to the steadily increasing number of pauper incurables, and the need of further provision for their accommodation. This want he suggests should be met by additions to the existing State hospitals. He condemns the plan of separate establishments for incurables:

"In different places, and at different times, the experiment has been tried of supporting this class of patients in institutions set apart for them, organized and administered in a manner supposed to be adapted to secure an economical, and at the same time a sufficiently humane system of treatment. The results, however, have not been such as to recommend the system, but have rather cast well deserved opprobrium on those connected with their management."

In discussing the capacity of the insane for mechanical trades, Dr. Prince gives the results of his experience during the year, in the introduction of the manufacture of baskets, mats and palm-leaf hats. The experiment proved but partially successful, and, from slight embarrassments, which, it appears to us, a little more persistency would have overcome, was abandoned. In conclusion, Dr. P. remarks that—

"The subject of employment for the patients is, however, of such great importance in a hygienic view, that it is in no danger of being lost sight of, and the means of securing it will be constantly studied and availed of to as great an extent as possible."

5. The tenth annual report of the Massachusetts Hospital, at Taunton, reviews briefly the history of the institution since its opening. During this interval 2,244 patients have been treated; of these, 826 have recovered; 192 have left the hospital in various stages of improvement; 398 were discharged unimproved, and 403 have died. The admissions in the last year numbered 196, and the discharges, 176: of the latter, 87 had recovered; 23 were improved, and 54 unimproved. The deaths during the year were 34.

Dr. Choate calls attention to the fact that the table of the causes of insanity shows "that more than one-half of the cases of diseases in men, in which the cause is known, are produced by a disregard of the known laws of health and morality." He thus alludes to our consequent responsibility in the production of disease:

"There can be no question, that those, who disregard the moral law and the laws of nature, are not only more liable themselves to insanity, but also transmit this liability to their descendants. The parent who indulges in the excessive use of poisonous substances, or who gives way to enervating or debilitating indulgences, even if not made insane himself, is exceedingly liable to pay the penalty of his transgression in witnessing the horrible epileptic convulsion, or the pitiable imbecility, or the more awful maniacal paroxysm of his child. And if the child follows the evil course of the parent, which is too apt to be the case, an hereditary family tendency is formed, which developes into disease, upon what, under other circumstances, would be very far from being a sufficient exciting cause. The more we see of mental disease in its various forms, the more we must be convinced that the study of its prevention is infinitely more important than even the study of its cure, and that the dissemination of more correct views of the true way of life, and a more rigid observance of the known laws of health and nature, would greatly diminish its frequency."

6. From the report of the McLean Asylum, we learn that the admissions for the year were 94, and the dis-

charges, 69; the recoveries were 36; the deaths, 13; and 20 were discharged in various stages of improvement.

Dr. Tyler makes the gratifying announcement that—

"A new cottage for gentlemen, corresponding in fitness and excellence to that for the ladies, is now building, and the extension of their grounds over a very large area is about to be accomplished. And the means for this—$45,000—were given by subscription in the short time of four weeks!"

The views of the Trustees in reference to the Lunacy Commission which was appointed by the Legislature, to examine into and report upon the subject of insanity, and the management of the asylums in the State, are thus briefly stated:

"As the public mind is very naturally sensitive upon this delicate and important topic, and is very easily disturbed, we deem the appointment of this Commission an act of wisdom, and any suggestions that may be made by it, will be carefully weighed and conscientiously considered, by those having in charge the asylum at Somerville. But to persons interested in the treatment and guardianship of the insane—and all should be interested—we especially recommend the annexed report of Dr. Tyler, wherein this subject is referred to at some length."

After stating the question, whether sufficient restrictions and guards exist to prevent the unjust confinement of persons not insane, in asylums, and whether, increased restrictions would not act prejudicially against the admission of patients requiring treatment, or induce delay that would result in permanent insanity or death, Dr. Tyler asserts, that if there be any defect in the law or the management of hospitals for the insane, which involves the invasion of personal rights, no body of men would urge reform more strenuously than superintendents of asylums. He then proceeds to say, that the real point to be scrutinized, is "the fitness for their position of the men who have these institutions (asylums) in

charge." If they are without the requisite qualifications, the reform should begin with them.

Introducing the *argumentum ad hominem*, Dr. Tyler asks "each one to make the case his own, to suppose the occurrence of insanity in his own family, and in the person of some one dearest to him, and to judge for himself whether his own kind interest in the sufferer would not ensure for him the most considerate provision and the kindest treatment, and make him shrink back from legal forms and restrictions, which would involve the irresponsible sufferer in a lamentable and mortifying exhibition before the public." "Rather than this," he exclaims, "greater restraint and less efficient care would be considered as on the whole *the best*." Now, in view of the fact that social and moral obligations ordinarily afford sufficient safeguards against injustice to the insane, and that it is upon those, influenced by these obligations, that increased restrictions would press most heavily, we should not, in our anxiety to prevent the occurrence of a possible evil, in an exceptional case, prejudice the welfare of the many; for whatever legal restrictions come upon one, must come upon all.

But greater restrictions, it is contended, are to prevent the sane from being placed and detained in asylums by designing relatives or guardians from ulterior and wicked purposes. To expose this fallacy, the Doctor enumerates the legal requirements to be complied with before a patient can be admitted to the McLean Asylum, and shows conclusively the utter impossibility of the detention of a sane person, visited, as he would be, daily, and often many times a day, by the Superintendent and Assistant Physicians, in constant intercourse with supervisors and attendants, seen and conversed with

every week by two of the Trustees, visited informally every week by the President, or some other member of the Board, and once in three months by the whole Board, and finally, by a "Board of Visitors," consisting of the Governor and Lieutenant Governor, the Presidents and Chaplains of the Senate and House of Representatives, whenever they deem such visit necessary.

"How then is it conceivable that such detention should exist, except upon the supposition that the officers of our institutions are dishonest men? And it is not sufficient to say that one or two or a few are so, for it is absurd to suppose that one or two or a few dishonest men could by any means thus detain a person who ought not to be detained, in the face of the many honest and faithful officers who have equal responsibilities and equal power for observation and control.

"But if under any circumstances such a wrong is suspected, or if an honest difference of opinion exist concerning any case, there still remains to all, the great right of freemen, the safeguard of personal liberty,—the writ of habeas corpus, under which any case can have a full and fair examination.

"The only effective way to guard against any abuse from unjust admission and detention in our hospitals for the insane, is not to raise more impediments in the way of their being occupied, by additional forms and processes of admission, unless indeed you are willing to abandon all the curative measures which the study and experience of years have proved to be successful with this terrible malady, and reduce them to mere receptacles for incurable disease, but by the most rigid scrutiny and diligent care to make sure that the guardians, officers, and attendants of these institutions, all are trustworthy persons and fit to be charged with such high responsibilities. Let the beginning be made here, with the McLean Asylum, and the more careful and just the examination, the more will it be welcomed, that the public and the anxious friends of patients may no longer be harrassed by indefinite rumors and innuendoes, which, though not believed, they have not the means to disprove."

7. The statistics of the Butler Hospital are as follows: Admitted during the year, 37; discharged, 39; recovered, 9; discharged, improved, 14; unimproved, 8; died, 8. Remaining at the end of the year, 130.

To the annual reports of this Hospital, we turn always with a reasonable assurance that we shall find something

to reward perusal, and suggest profitable reflection. For younger students and practitioners, they contain the results of a long experience, the ripe fruits of patient and profound thought. From the clear and philosophic mind of Dr. Ray, we know well that nothing crude, or vague, or visionary can come.

Having alluded to a common expectation at the beginning of the present war, that its vast and multiform calamities would tend largely to the increase of insanity, and also to the fact that the hospital records do not seem to confirm this opinion, Dr. Ray proceeds to say, that the troubles referred to have probably told upon the mental health, not so much in the shape of overt insanity, as in that of a morbid erethism, which becomes a germ of disease to be developed hereafter. On this ground he believes that the injurious influences of the great struggle, so far as they act on the general sanity, will be witnessed, not so much in the present as in the next generation. The expectation referred to, was founded on a mistaken idea of the real causes of insanity, and the mistake consists in supposing that insanity is generally the effect of some deep emotion, or bodily ailment, without consideration of the previous organic condition which gave these events their power to harm. Starting from this point, Dr. Ray proceeds to consider somewhat minutely, the way in which mental diseases are produced.

The origin of these incorrect views, is found in a very common misapprehension of the relations of cause and effect. This is exemplified in the fallacy which supposes that prominent events must be preceded and caused by prominent events. It is seen in those who find the relation of cause and effect in mere proximity of occur-

rence, or in some casual circumstance. Thus, "when an attack of insanity takes place, and we look among the occurrences of the past life for the cause of so singular a phenomenon, we seize on the most prominent or peculiar, and easily persuade ourselves that we have found the object of our search. It may be a singular, a remarkable, an extraordinary event, and yet the proof of necessary connection be utterly wanting. The proof seldom can be obtained without an exhaustive investigation of that and many other occurrences in the life of the patient —the inner as well as the outer life."

But, supposing a full knowledge of all the antecedents, we are not competent to measure the agency exerted by any one of them, in the production of disease. Some trouble, wholly out of sight, may have more to do with it than the great visible affliction. In conversing with recovered patients on the incidents which led to the attack, Dr. Ray has often noticed that they had laid far less stress on the prominent event to which others ascribed it, than to some matter so slight as to have escaped the notice of the nearest friends. The truth is, that we can seldom be sure that the morbific agency is due to causes which are obvious, and not to some peculiar and inherited condition of the cerebral organization.

The habit of regarding insanity as a condition clearly defined and easily separated from the incidents which attend it, is another source, and, perhaps, the principal source of the error under consideration. How shall we determine that point in the line of sequences which marks the beginning of diseased action? How can we, with certainty, distinguish between the actual cause, and some incident of the morbid process.

The truth of the following remarks will be questioned

by very few of those who have had much experience in endeavors to trace insanity to its source:

"To ignore all these difficulties, or decry them as of little moment, for the very reason that, if duly considered, they would effectually debar us from arriving at any fixed results, will not help us to obtain the truth. In all philosophy, there is no error more obstinate, or more fatal to true progress, than that so often witnessed—of believing that any conclusion, however defective, is better than none. To the unwary reader, the TABLES which are made up with such an elaborate show of statistical accuracy, representing so many cases as caused by domestic affliction, so many by religious excitement, so many by this, that and the other, are the embodiment of so much genuine knowledge. True, he may be told that they are put forth only as approximations to the truth; full of errors, indeed, but through these very errors leading the enquirer to unquestionable truth. Nevertheless, the caution thus implied will scarcely weaken the force of the popular adage, that figures will not lie. Nothing better indicates the true value of such statistical results than the fact, that the proportion of cases attributed, in our hospital reports, to 'Causes unknown,' has been steadily rising from zero to half or more of the whole number. This is not an expression of positive ignorance merely. Rightly interpreted, it means, I apprehend, the conviction that the development of insanity generally requires a concurrence of several adverse incidents, and that the instances which can be attributed exclusively to any one special event, however prominent or serious, are exceedingly few. Such, indeed, is the lesson of experience."

Generally, two classes of agency concur in the production of insanity—one consisting in some congenital imperfection of the brain, and the other, in accidental, outward events. Dr. Ray does not assert that mental disease is never due solely to the latter class. There are cases in which no previous cerebral irregularity can be discovered. A deeper acquaintance with the inner life of the afflicted, and better knowledge of those organic movements which precede disease, would probably lessen the number of such cases.

The fact admitted, that these two kinds of agency are almost invariably conjoined, it may, and it should be, turned to useful account. We are not to be disheartened, as though this prevalence of constitutional infirmity con-

stituted a fatality not to be resisted. In a large majority of cases the innate morbid element is, more or less, subject to control. The danger, being known, may often be "kept in abeyance," by careful attention to the laws of health, and by a strict avoidance of those incidents and influences which have a tendency to excite the morbid element. Here is *the conclusion of the whole matter:*

"If I have succeeded in making myself thoroughly understood, it must be admitted that the causes of insanity which spring up around us, are of far less potency than those which we bring into the world with us, and that the only effectual measure of prevention is that which gives them no chance to enter into the blood. Most certainly, until this conclusion is adopted, we shall witness little diminution of the amount of insanity in the world."

8. The Managers of the Hartford Retreat for the Insane, announce the successful introduction of steam-heating apparatus to the centre building, and recommend that other parts of the establishment be warmed in the same manner.

They also mention the necessity of increasing the weekly charge for the support of patients. The rate has remained without change since 1844.

The number of admissions during the year was 143. Total number under treatment, 374. Of these, 72 were discharged, recovered; 26 much improved; 11 improved; 13 not improved, and 21 died.

9. In the report of the Managers of the New York State Lunatic Asylum, brief allusion is made to the causeless prejudice against hospitals for the insane, which exists among certain classes. These misconceptions are due mainly to the stories told of their treatment by discharged patients not fully recovered from their insanity. Many people who should know better, lend a credulous ear to the delusions of these unfortunates, and hence the

blind assaults which have been made upon some of the noblest charities of our time.

The Managers dwell at some length on the increased cost of living, and on the probable necessity of an advance in the price of board. This step, however, which must add to county taxation at a time when the public burdens are so heavy, they hesitate to take, and to avoid its necessity they appeal to the Legislature for temporary aid.

By the financial statement of the Treasurer, it appears that the aggregate receipts of the Asylum for 1863, were $133,949 32.

The report of the Superintendent opens with the following exhibit of operations for the year:

Number of patients at the commencement of the year, 514. Received during the year, 287. Whole number treated, 801. Discharged, recovered, 80; improved, 38; unimproved, 101; not insane, 6. Died, 42. Whole number discharged, 267.

With 1863 was completed the twenty-first year of the history of the Asylum. The occasion furnishes Dr. Gray an opportunity for an interesting retrospect of the operations of the institution during this period. We can but touch some of the topics and statements here so fully presented.

Of the liability to recurrence of mental disease, Dr. Gray remarks:

"Insanity, in common with other diseases, is likely to recur under certain influences and exposures. This circumstance does not argue against its curability, but rather shows how amenable it is to treatment. To those who are so unfortunate as to have a return of the malady this is a comforting fact, and supplies the stimulus of hope, which is so essential in affliction. To all it is a relief, and while it impresses the importance of avoiding the influences or habits calculated to cause a return, it at the same time, takes away the dread of the fatality of such an event."

In this connection Dr. Gray gives a detailed statement of the readmissions to the State Asylum, during its whole existence. The general result is as follows:

"Since the opening of the institution in 1843, there have been five hundred and thirty-eight persons readmitted. Twice under treatment, four hundred; three times, ninety-five; four times, thirty-two; five times, six; six times, five. In the general tables of statistics of insanity in the institution, those five hundred and thirty-eight persons make a total of one thousand two hundred and seventy-three—an error, in the supposed number of insane persons, of seven hundred and thirty-five."

In these 538 patients, we have 662 recoveries, 207 improved, 277 unimproved, 61 deaths, and 66 still under treatment. An investigation of the history and state of these patients shows that in 287 admitted, 154 were "manifestly laboring under well-recognized conditions of impaired bodily health." Following the thought thus suggested, Dr. Gray observes:

"Each year demonstrates, more and more conclusively, that the true pathology of mental disorders is to be sought in physical enfeeblement. That the disease is dependent on conditions of more or less exhaustion of the vital forces. In treatment, this fact is kept constantly in view. Therefore, we urge earnestly upon the medical profession, the husbanding of these forces in the earlier stages of the disease, in which the patients come under their care; especially the avoidance of all depletives, whether by dieting, purgatives, or bleeding. If any one thing has been thoroughly demonstrated by the progress of medical science, within the past half century, it is the unquestionable importance of sustaining nature under all forms of disease, whether it be where medical or surgical art can aid, by the removal of appreciable or tangible causes, or where the physician stands only as the instructed guardian of the recuperative powers. This being true, it is not strange that we should annually urge this point, and be anxious to receive patients before the vital forces are so far exhausted that the organism is depressed beyond the influence of recuperative agencies; and the unhappy sufferer, deprived of the chances of complete, or even partial restoration, is doomed, unjustly and unnecessarily, to a life of disease."

The Doctor remonstrates against the practice of sending female convicts to the Asylum, and urges the State to make special arrangements for the custody and care of this class of criminals in the Asylum at Auburn.

Epileptics and paralytics constitute a large proportion of the cases admitted. No patients are more in need of hospital treatment than these classes. Their liability to sudden and violent paroxysms, their general helplessness, and consequent exposure to injurious accidents, make their continuance in private families unsafe as well as troublesome. It is painful to refuse them, and yet it is certain that they ought not to occupy room in the hospital to the exclusion of patients who are not beyond the reach of curative means. The proper disposal of these patients can be secured only by the establishment of special hospitals for their accommodation.

It is a melancholy fact, that of the 287 received during the year, a large proportion had been insane for more than a year before entering the Asylum. To show the immense importance of early treatment, the following statistics of York Retreat, England, are adduced. They cover a period of more than sixty years:

	Proportion of recoveries. Per cent. of admissions.		
	Male.	Female.	Mean.
First class, first attack and within three months,	72.97	73.23	73.10
Second class, first attack above three and within twelve months,	43.07	44.02	43.66
Third class, not first attack and within twelve months,	59.44	67.01	63.77
Fourth class, first or not first attack, more than twelve months,	13.29	22.59	18.20
Average,	49.54	49.50	49.44

In regard to mechanical restraints, Dr. Gray refers to the views which he presented on this subject in the eighteenth report, quoting largely from that document. The various methods employed in the New York State Asylum are somewhat minutely described. The need of such methods and their advantages are conclusively shown.

Dr. Gray shows that self-control is rarely lost in the insane, and furthermore, that this fact constitutes the basis of moral treatment. His remarks under this head have an important bearing not only on mental therapeutics, but upon the medico-legal question of the irresponsibility of the insane, and are in direct conflict with the doctrine of responsibility, as expounded by the English Law Courts. If the knowledge of right and wrong constitutes responsibility, it must follow that the great majority of patients in asylums are accountable for their acts in the eye of the law.

"As far as possible self-control is stimulated in patients and appealed to as the conservative power which, being exercised by them, contributes materially to their comfort and restoration. Self-control is utterly lost in but a very small proportion of the insane. The patients in any well regulated asylum are properly held to a measure of responsibility. To ignore the fact that they have a good degree of self-control, and act on the assumption that they are entirely irresponsible, would be the abandonment of all healthful discipline, the removal of the strongest inducements to good conduct and the maintenance of self-respect. It is our constant aim to treat patients as men and women, to urge the cultivation of self-control, to impress the important duty of such conduct and conversation as will promote self-respect and due respect for others, and proper regard for the proprieties of life. Says Dr. Bucknill, one of the most distinguished European superintendents, 'If strong motives are addressed to the patient he is capable of controlling the manifestations of the malady under which he suffers. The vast majority are enabled, with a little encouragement and assistance, to control their passions and emotions with nearly as much success as the people out of doors.'"

In continued discussion of this topic, Dr. Gray describes a class of patients whose mental manifestations render them most difficult subjects for management either in or out of an asylum. Superintendents will readily recognize the picture:

"There are those, however, who even in their best condition, are little amenable to discipline or reason; who seem to take pleasure in making those about them uncomfortable and unhappy. They are discontented, perverse, grumbling, and generally selfish. This class is

not large, but one or two on a ward are competent often to much evil. These disagreeable manifestations in such persons are not always perversions of character, but are more generally only exaggerations of natural characteristics. Mean, selfish, politic, hypocritical people, frequently become frightful exaggerations of themselves, in insanity. Self-control removed, their natural evil qualities appear to expand without limit. Some of these persons are the annoyance of a neighborhood for years, or almost demons in their families, but their insanity is not suspected, until the committal of some overt act, by which they are brought in contact with the law, and their true condition revealed. They are generally in good bodily health, evince unusual mental activity, and are often stored with moral precepts, are self-confident, self-asserting, and plausible, and conceal their delusions and the motives influencing their conduct. In the asylum, they endeavor to exercise an amount of self-control sufficient to insure what they desire as the minimum of comfort. They are restless, rather wakeful, almost always assert their sanity and often write very good letters. This condition is one of mania, of increased and unequal cerebration, or brain activity. Their insanity is recognized in the undue mental activity manifested, the great moral perversions exhibited, and the intellectual impairment observed in the want of coherence and consistency of their plans and speculations, in their enfeebled judgment, in their estimate of men and means, and their want of persistent personal application in any useful or honorable occupation. The most striking fact of their condition, showing mental disorder instead of moral depravity is, that they have exacerbations and remissions, alternate states, not influenced by their will, and not the result of surrounding circumstances, or changes in their external condition, or of emotions or aroused passions by the words or conduct of others. These persons usually become demented. Some of these cases would probably be denominated moral insanity by those who believe in the existence of such a disease. I have observed many of these for long periods, extending over years, and can recall no instance in which delusions were not sooner or later discovered."

The New York State Lunatic Asylum was opened January 16, 1843. Since that day six thousand, nine hundred and sixteen patients have been received and cared for. Of these, 2,714 have recovered; 1,061 have so far improved as to return to their business and families; 1,733 have been discharged as unimproved. In a majority, however, of these cases, the disease was so far modified as to render them comparatively quiet and manageable, and 816 have died in the asylum, after months

or years of faithful care. Fifty-eight have been discharged as not insane, and 534 are inmates still.

Dr. Gray truly says, that "the cure of patients, although the primary object, is only a small part of the labor performed by an asylum," and is far from constituting all the benefit which such an institution confers on individuals, families and the community. To make the fact more palpable he gives the aggregate time of the patients in the hospital. The following tabular statement presents an approximate estimate for the twenty-one years:

	Years.	Months.	Days.
For those recovered,	2,295	2	5
For those improved,	1,155	7	14
For those unimproved,	3,544	6	13
For those who died,	1,234	1	12
For those not insane,	8	10	22

To carry fully out this idea, it seems necessary to give the sum of years for all the classes, and this amounts to the enormous period of 8,238—a period more than 2,000 years longer than the old chronology allows for the existence of our race upon the earth.

"But we must go still further if we would realize fully what the institution has accomplished. In examining its voluminous records, do we find that it has added to the store of human knowledge in reference to the diseases it has treated? Do these records throw any light upon the causation, pathology and treatment of insanity? Can we trace any influence it has exerted, or benefits rendered to the literature of this branch of the profession, or in reference to legal questions affecting those insane or supposed to be insane? If it furnishes evidence of an influence in the progress of psychological medicine in these directions, then it has been eminently useful."

A careful record of all those facts which bear on the general subject of insanity, and especially on its causes, nature and treatment, is required by the law creating the institution. Rules established by the managers at the outset, and still in force, impose upon the medical officers

of the asylum the duty of specific and minute inquiry into all cases that may be presented, and also that of recording their clinical observations, prescriptions and results. Dr. Brigham "instituted a system of examination and observation of the disease, so comprehensive and detailed, as to embrace every point prominently suggested as bearing on causation, pathology and treatment."

Dr. Gray pays a well deserved tribute to the acuteness and general ability of his distinguished predecessor. But on certain points his views differ somewhat from those which were entertained by Dr. Brigham. The latter, in his estimate of the causes that produce insanity, gave the predominance to those of a moral nature, while Dr. Gray thinks they are more frequently of a physical character, and this opinion has, he believes, the weight of authority in its favor. In confirmation of this he quotes the statement of Dr. Tuke, founded on the history of the York Retreat, an experience of nearly seventy years—to wit, that the physical causes have there exceeded the moral twenty-five per cent. Dr. Tuke also says that "on a total number of 29,769 cases admitted into various asylums, we find three-fifths referable to physical and two-fifths to moral causes." As strongly additional evidence in the same direction, Dr. Gray presents a table, showing the analysis and the per centage of moral, physical, and unascertained causes, as recorded in the admissions of the Utica Asylum, for twenty-one years, the result being as follows: Moral causes, 1,710; physical causes, 3,830; unascertained causes, 1,376. The per centage is for moral, 24 $\frac{12}{100}$; physical, 55 $\frac{33}{100}$; unascertained, 19 $\frac{55}{100}$. This table also shows that the per centage of moral causes was greater in the earlier years, and has been gradually decreasing. This circumstance Dr.

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Gray conceives to be mainly attributable to a gradual change of opinion in regard to the causation of cerebral disease. An experience more extended—an observation more careful—have led to the conviction that physical disorders and debility have far more to do in the production of insanity than any causes directly affecting the mind. Assuming the justness of this view, its practical bearing is manifest, and leads us at once into the true path, both of prevention and remedy. Grief, anxiety, depression and delusion, so far as they are either caused or fomented by physical debility or disturbance, are to be relieved, if relief be possible, by rest and nutrition, by skilful medication and judicious care.

In the classification of Dr. Brigham, more than fifteen per cent. of the cases admitted in 1843 were ascribed to religious anxiety. During the six years of his administration, the per centage on this account went gradually down to six and four-tenths. Dr. Gray believes that those cases, or that most of them were not rightly understood. He says:

"We, indeed, think it is safe to infer that religious anxiety is rarely, if ever, a cause of insanity. The sublime faith of Christianity is rather a safeguard against it, and is unquestionably a support under its scourging."

No one, certainly, will question the truth of this last remark, at least so far as the safeguard is concerned. We should be slow to believe that the truths of Christianity, taught and received in the spirit of its Divine Author, can exert an influence unfriendly to those whom they are intended to bless and to save. But, are they always thus taught? Are they always thus received? Have we nothing to fear from the teachings and the measures of fiery zeal and blind fanaticism? In those whirlwinds of passion and frenzied excitement which have too often

been gotten up under the sacred name of religion, is there no danger to the timid, the nervous, the sensitive, and especially to those who are hereditarily and constitutionally predisposed to mental derangement?

We give in his own words the closing paragraphs of Dr. Gray's interesting resumé of the twenty-one years:

"As to the treatment, I believe the records will abundantly show that full pace has always been kept with the general progress of medical science, and that moral or medical remedies have been discarded or adopted as soon as investigation and experience have shown these to be evil or good. The douche, shower, seclusion in cells, male attendants aiding in the care of the more excited and violent class of female patients, all of which were once in use, and believed to be beneficial, have long since been discontinued, and every trace of them removed. The cells, built carefully and at great expense, were disused more than twelve years ago, and were subsequently taken down and ordinary rooms constructed instead. The proportion of attendants to patients has been nearly doubled, and in all respects the institution has sought to adopt at once whatever has seemed essential to the more certain and speedy recovery of patients, or which might contribute to their more humane treatment.

"The institution has always maintained a foremost rank in all the great improvements in sanitary measures. It was the first to adopt steam heating, with mechanical ventilation, which has since been so successfully introduced into so many kindred establishments, general hospitals and charitable institutions, and the capitol buildings at Washington.

"That there has been progress in the direction of medico-legal questions, and that the literature of insanity has been enriched during the past twenty-one years need not be argued. To answer the question whether or not this institution has had an agency in this, we may cite the fact that Dr. Brigham, in 1843, with the opening of the Institution commenced the issue of the AMERICAN JOURNAL OF INSANITY, which, during his lifetime and to the present, has been edited and published in the Asylum, and by its officers. It was among the first successful journals devoted to psychological medicine in this or any other country, and the only one, now or ever, issued in the United States."

10. The fourth annual report of the State Asylum for Insane Convicts, presents the following statistics: At the commencement of the fiscal year there were 81 patients under treatment. During the year, 5 were re-

ceived from Auburn Prison; 4 from Sing Sing Prison; and 1 from Clinton Prison; making the total number under treatment, 91. Of these, 5 have been returned to prison, well; 1 was discharged by pardon, well; 1 was discharged by expiration of sentence, improved; 3 escaped, well; and 2 died.

The excellent economic administration of this establishment under the supervision of Dr. Van Anden, is shown by the notable fact that, notwithstanding the steady advancement in price of every article of consumption, the expenses of the fiscal year just closed, have been $638.21 less than in any preceding year since the opening of the asylum. Estimating the entire expenses of the year, the average cost of support of each patient has been $2.89 per week, being 21 cents less than the corresponding amount per week of the previous year.

We are glad to see that Dr. Van Anden has abandoned his suggestion of last year, to relieve the crowded state of the asylum by a legislative enactment, authorizing the return of convicts to their respective counties on the expiration of their sentence. He now advocates an addition to the asylum buildings. This, he says, could be effected at comparatively slight expenditure, and would treble the capacity of the institution. In this connection, allusion is made to propositions received from another State to place its criminal insane at Auburn. We think, however, the citizens of New York will receive with little relish the proposal to make this institution a Botany Bay for insane convicts from Massachusetts.

The original project of the Auburn Asylum included both criminals and convicts in its provisions. Under its present organization, not half the benefits primarily contemplated are secured. Citizens of the State, respect-

able men and women, at the Asylum at Utica, still have their feelings outraged by association with criminal lunatics. Let the Legislature of New York place the Asylum at Auburn upon the basis originally devised, and it will then, and not till then, develop its full capacity for usefulness.

Touching the objects attained by the institution, Dr. Van Anden remarks:

"Besides discharging during the year some cured, and others much improved, we have afforded shelter and the comforts of life to many a one, who, at the expiration of his term of sentence, would have been left without care or protection, and abandoned to a miserable state of want and penury. To be convinced of the degree of shameful degradation to which hundreds of the helpless insane of our State are reduced, a single visit to some of our county alms-houses will suffice. By inspection of a few of them, they will be found to be abodes at which humanity well may shudder. The inmates oftentimes half-clad, with insufficient food of a proper quality, filthy, living in a promiscuous commingling of sexes, without sufficient air and light, they become objects of our pity and commiseration, and we may turn with *pride* to the merciful provisions which are made for the criminal insane, while many of those who are deprived of their reason and yet innocent, are abandoned to filth and wretchedness."

The blush of *shame* should tingle the cheek of every citizen and legislator of the State at the contrast presented, "not that ye have done this, but that ye have left the other undone."

11. At the New York City Lunatic Asylum, 1,111 patients have been under treatment in the course of the year. Of these, 342 were admitted during the year, and 222 were discharged. The deaths were 117; of these, 43 were from consumption, and 24 from general paresis. Of those discharged, 163 had recovered; 38 had improved; and 22 were unimproved.

We learn from Dr. Ranney's report, that the asylum received serious damages from the explosion of a magazine, in which several tons of powder were stored, on

the river bank opposite the asylum. Windows were broken, doors dashed open, locks and hinges destroyed, furniture injured, the roofs of the wings were raised, and the slates on the new asylum so far broken as to make a new roof necessary. The bill for repairing windows alone, was $2,522.09.

Dr. Ranney calls attention to the serious and increasing evil of sending alleged lunatics, who are under indictments for the higher crimes, to the asylum. During the year no less than six of this class were admitted by order of the court. The charges against them were as follows: Indictment for murder, 1; conviction on confession of manslaughter, killing his wife, 1; complaint for homicide, killing her child, 1; indictment for assault and battery, with intent to kill, 3.

We touched upon this subject in our notice of Dr. Van Anden's report, but its proper consideration is of such importance to the community, and the reflections of Dr. Ranney are so apposite and just that we quote him at length:

"It is unquestionably the case, that persons of this class are more dangerous to themselves and to others than the ordinary insane, who have never exhibited propensities to crime. A propensity to kill, burn, etc., increases greatly the risks to inmates and buildings, and calls for special arrangements to guard against casualities. Acting upon this reasonable conviction, the State has erected at Auburn an Asylum for Insane Convicts, which combines, as far as may be, the comforts of an asylum with the strength of a prison. This building is not only fire-proof, but is of sufficient strength to prevent escape. The necessity for this appears from the reports of the Superintendent, wherein it is shown that a certain portion of the alleged lunatics never exhibit any signs of insanity.

"In this asylum there are no rooms really stronger than the usual sleeping rooms of the hotels in the city, and the only appearance of extra strength is in the cast iron sashes of the windows, which might be readily broken. They are well adapted, however, to common cases of insanity, but are insecure for the criminal insane with dangerous propensities, and afford to those who feign the disease, in order to

escape punishment for their offences, ready facilities for elopement. One of the unhappiest results of the reception of this class is, that the other insane feel truly degraded by the association, and are fearful that their own lives are endangered. Many of our patients are exceedingly sensitive, and feel deeply any real or fancied injury or injustice. It becomes with them a matter of complaint that murderers even occupy the same halls with them, and sit at the same table. Expressions of feeling arouse a spirit of ill-will and antagonism, and serious quarrels and difficulties result. Considering the probability of elopement, the discomfort of the patients, the risk of the buildings being destroyed, and the danger of murderous attacks, it seems a very serious evil that the criminal are often placed with the non-criminal insane.

"The present law provides only for the inmates of a prison, who are, or who become insane, and I trust that your Honorable Board will make an effort to have it so amended as to render it obligatory on all counties of the State to send all insane persons, who are under indictment for, or who have been convicted of a criminal act, to the Asylum for the Convict Insane, at Auburn."

12. The yearly statistics of the Bloomingdale Asylum for 1863, are as follows: Total number treated, 272; admitted, 115; discharged, recovered, 53; discharged, improved, 47; not improved, 16; died, 14.

13. Dr. Chapin, Resident Physician of the Kings County Asylum, reports 206 admissions during the year, making the total number treated in this period, 572. The discharges were, 76 recovered; 40 improved; and 11 unimproved. Deaths, 49.

14. The New Jersey State Lunatic Asylum, began the year with 325, and subsequently admitted 164, patients. It discharged, 68 recovered; 56 improved; 6 stationary; 2 escaped; and 31 died.

During the past year, the requisite machinery for making aerated bread has been introduced into the asylum. Dr. Buttolph remarks, that three advantages are ensured by this method over the old process, viz: "More wholesome and palatable bread, increased, if not absolute,

cleanliness in the preparation, and greater economy in the use of materials."

Another important improvement effected, is a novel contrivance for making gas, for lighting the building, from rock or coal oil. The objection to gas made from this material has been, until recently, the difficulty of securing combustion without smoke. This difficulty is now obviated by Walton's patent "gas and air mixer," which is placed between the gas holder and the burners,

"And is so constructed as to supply a definite proportion of air, (forty parts in one hundred,) to the strong gas, thus practically adding so much to the capacity of the containing fixtures, and giving a mixed gas, that burns with a clear white light, quite free from smoke, and with double the illuminating power of coal gas. The arrangement is altogether very simple in construction, and reliable in operation, and as it secures the perfect combustion of the gas by the admixture of air, which costs nothing, it is, of course, much preferable to the method heretofore proposed, of using hydrogen gas for the same object, and made by decomposing water or steam. The generating fixtures consist of two "D" retorts about seven feet long and twenty inches wide on the flat surface, and set in brick work in the usual way; the retorts resting in their whole under surface on tile made of fire clay, to protect them from the direct action of the fire, and made with moveable mouth pieces and stand pipes in front. Above is a hydraulic main to receive and condense the tar, and beyond this an arrangement with a jet of cold water for washing, or rather cooling, the gas. From economical considerations we use the residuum of coal oil, or the thick tarry material that remains after the oil has been subjected to a process of distillation, with the view of extracting the finer illuminating and lubricating portions. This article, when not too closely worked, is of a greenish color, and so rich in carbon that it supplies almost as much gas and of a better quality, than the crude oil itself. If the process is carried so far that the residuum appears black or quite dark, its value for making gas is much impaired. [We put several barrels of this material together in a wrought iron tank, situated in the ground within the gas house, over the bottom of which is distributed about fifty feet of one inch steam pipe, by which the proper temperature can always be secured for working, and without any danger of igniting the mass. This reservoir is covered with plank, on which is placed a small double acting force pump, which is connected by pipes with the oil cistern below, and the moveable head of the retort above, and used to supply the oil thereto. By contracting the extreme end of the force pipe, which extends about twelve

inches into the retort, and then using a short quick stroke of the pump, the oil is distributed over the length of the retort, and the whole surface rendered efficient for generating gas, although the arrangement for escape is by the stand pipe in front. By this method of supplying the oil, retorts of pretty large size can be advantageously used, and with far less danger of delay from the obstruction of pipes than occurs in the usual method of allowing it to move slowly in through a syphon from a tank situated above. It may be added, that by one of these retorts we are able, under favorable circumstances, to make from five to eight thousand feet of strong gas in a day and evening.

15. The number of patients admitted to the Pennsylvania Hospital for the Insane, during the year, was 193; the number discharged, was 193; leaving 285 under treatment at the close of the year. Of the patients discharged, 88 were cured; 14 much improved; 33 improved; 27 stationary; and 31 died.

Dr. Kirkbride's report discusses chiefly matters of local interest to the hospital. It gives an interesting history of the evening entertainments, lectures and amusements, since their first introduction to the hospital, in 1843–4. The remarks upon transparent photographic pictures, form an interesting chapter in the history of this wonderful art, especially in view of the following statement:

"It is interesting to know that everything under the name of stereopticon, &c., that is now shown to the intelligent audiences which fill some of the largest lecture-rooms in our cities, and which has been so generally commended, was familiar to the patients of this hospital some years before these public exhibitions were commenced."

During the past year the system of light gymnastics of Dr. Lewis, has been introduced at the department for females. Dr. K. regards this system "the true one for securing safely, a proper development of the muscular system."

In concluding his report, Dr. Kirkbride alludes to the experiment of the past four years, of treating the sexes

in separate buildings, as a most gratifying success, and he promises to give, at no distant day, his opinion of the results already achieved.

REPORT OF COMMISSION ON INSANITY.

In 1863, Commissioners were appointed by Governor Andrew, under a joint resolve of the Massachusetts Legislature, to examine what changes, if any, are necessary, in the laws regarding insane persons, with power to visit all the lunatic hospitals and asylums and private establishments for the reception of insane patients; to examine the cases of any patients confined in such hospital, asylum, or other place; to summon before them and examine, under oath or otherwise, any witnesses, and report at the next session of the Legislature.

The Commissioners were Josiah Quincy, Jr., Alfred Hitchcock and Horatio R. Storer. Their report is before us.

All the lunatic asylums of Massachusetts, and many of the State and town poor-houses were visited by the Commission. It also took a look at the hospitals of Quebec and Toronto, of Concord, Augusta, Providence, Utica, Binghamton, Cincinnati, Indianapolis and Kalamazoo. It testifies to the efficiency of the several superintendents of the public asylums, to the neatness of the buildings, and to the kind attention that appears to be bestowed on the unfortunate inmates of these establishments. But the Commission found some defects calling for legislative remedy.

"*Are patients wrongly detained in lunatic asylums?*" This is the first question considered in the report. Alle-

gations of improper commitment and confinement are frequently made, and there are many who believe them. It is quite probable that the Commission, whose report we are considering, had its origin in vague accusations of this sort. Clothed as they were with power to make a full and thorough examination of every establishment in the State, where insanity is treated, they undoubtedly attended carefully to this part of their duty. We call attention to the result of their inquiries:

"With reference to the above points, the Commissioners would frankly acknowledge, that no such case of clearly wrongful confinement, in a hospital, has been brought to their notice, and but a single instance of wrongful admission. In this case, occurring at Worcester, the patient was received upon the order of a Probate judge, and upon learning the facts in the case, she was immediately discharged by the superintendent. It is their opinion that the care of the Massachusetts hospitals for the insane is, at the present moment, in honest hands. The great source of misapprehension upon this point lies in supposing that asylums are still, as was undoubtedly formerly the case, houses for detention rather than hospitals for cure. To accomplish the latter, their real end, some cases that are doubtful, especially where a single delusion is thought to exist, must necessarily be admitted. There is little chance that such, if the suspicion is unfounded, will be detained in a public hospital beyond the reasonable time required to ascertain their true character. Too little allowance seems hitherto to have been made for the excessively delicate and responsible position here occupied by trustees and superintendents, who, if worthy of appointment to their posts, should also be thought worthy of confidence and trust."

The Commission, apparently with good reason, objects to the way in which commitments to hospitals are now made in Massachusetts, and advises that uniformity should, in some way, be secured. Legislative attention is called to an anomaly in the laws respecting the insane. So far as hospital privileges are concerned, the alien in Massachusetts has an advantage over her own sons and daughters. The lunatic, if a poor foreigner, is sent, at once, to the asylum, while for its own insane pauper

children, the State makes no efficient provision. The interests of this large class are left to the tender mercies of "overseers of the poor." Influenced by a short-sighted economy, these officers keep many of their lunatics at home, large numbers of whom become incurable. The folly of this, in a merely pecuniary point of view, is proved arithmetically. We do not understand, and cannot suppose that the Commissioners would advise that the insane alien should be less liberally dealt with than he is now—but only that natives of the State should have the same advantages.

About the year 1830, the horrible atrocities committed upon the poor insane of the State, were dragged to light by Horace Mann and John D. Fisher, and exposed with unsparing severity. Twelve years later, the Memorial of Miss Dix, with its appalling narrative of the degradation and misery of the insane of the commonwealth, was presented to the Massachusetts Legislature. The ameliorated condition of the insane of that State is, in a great degree, due to the efforts of these distinguished philanthropists. But that much remains to be accomplished, even where the plea of humanity in behalf of these poor unfortunates was so early and so effectively raised, is illustrated by the following cases, narrated by the Commissioners:

"Under the inclined roof of an out-building connected with a poor-house, a situation where the inmates must have suffered intensely from cold in winter and heat in summer, the Commissioners found a man and a woman confined in what were in fact cages, on the opposite sides of a narrow passage-way that led to a small window in the gable end of the building. There was no ventilation, and the walls and ceilings were daubed with excrement. Your Commissioners were informed that these poor creatures had been kept there for years, with only the variety of being transferred from one cage to another when it was necessary, in the language of their keeper, 'to clean them out.'

"In one of the town alms-houses, an incurable insane pauper was

found in a narrow, filthy cell or cage, who, a few years ago, in the same place, lost most of his toes, and more than half of one foot, by freezing. He is still confined in the same cold, dark and non-ventilated cage, the stench from which is horrible. In some places they were found locked up in strong rooms like felons, men and women naked, their beds a bundle of straw, and fed only like wild beasts, through the doors."

The Commissioners devote a page to the case of one Joseph Shepard, who is confined in the Charlestown alms-house, but who, in the opinion of the Commissioners, is not insane. Mr. S., it appears, has been in the Worcester Asylum, and was discharged as incurable. His insanity is evidently of the remittent type, and there are intervals when he can work at his trade, but in the opinion of Dr. Bemis, he is "not a safe and reliable man." The Commissioners acknowledge that he is perfectly comfortable in his present quarters. Having examined the man, they urged the authorities of Charlestown to let him out, and they refused. They then insisted that he should be sent to an asylum, but Charlestown would not obey. So they present the case to the Legislature, and request that body to interpose its sovereign authority in order that this Joseph Shepard may go at large, or be removed to a curative asylum. But why should the poor man be sent to an asylum, if not insane? This whole matter, as presented by the Commissioners, reminds us of the mountain and the mouse.

With regard to insane paupers, the Commission very properly urges that none should be confined in town poor-houses who have not been previously treated in a State hospital and discharged as incurable. As to the incurable who are not dangerous—and how is this fact to be ascertained?—they can be kept more cheaply in alms-houses, than in State hospitals. Now it would not be a difficult matter to show that the expense *pecuniarily*

of supporting the insane in alms-house receptacles is a greater burden on the State than their maintenance at a hospital. But *expense* implies something more than pecuniary considerations—there is expense of the patient's comfort, of his health or of his life, any or all of which this sordid policy imposes upon its helpless victim. Chronic insanity is a progressive disease. It has exacerbations and remissions, the former to be warded off or relieved by medical treatment, and the latter prolonged by careful hygienic supervision. Hence the necessity of an extension of the hospital system for these supposed incurables. Let them occupy separate establishments, in convenient proximity to the central hospital, where their labor could be turned to account, where their condition would be watched by experienced eyes, and their necessities supplied with judgment and kindness. Under this arrangement the chronic or "incurable" patient, during the recurring paroxysmal visitations of excitement, could be transferred to the central hospital for the treatment he so much needs. Such an organization, furthermore, would place the charges for support on a more equitable basis than now obtains. The patient requiring the benefits and appliances of the hospital would pay accordingly; and a corresponding reduction in the rates would attend his transfer to the colonies or separate establishments referred to.

The Commissioners recommend that there should be "additional accommodation for criminal lunatics, both curable and incurable." They would have these connected with some of the jails, and provided with a physician skilled in the treatment of insanity.

The Commissioners present certain statistics to show that the use made of hospitals for the insane depends

greatly on distance, and infer that the "great blessing of increasing ratio in the cured cases of mental disease can be maintained only by keeping hospitals in the vicinity of those who use them."

The following remarks in regard to the blending of incompatible duties, are of general application:

"The Trustees employ a physician to take charge of the great and comprehensive work of dealing with the most subtle and difficult question in pathology that can be presented to the mind of man. They place upon him the responsibility of managing three or four hundred wayward men and women. This, it is obvious, must require the undivided force and attention of any man, however strong, learned and versatile. Now no man can be a good, proper and successful manager of the mental disorders of four hundred patients, or even of two hundred and fifty, their more legitimate number, and a proper and successful manager of the purchases and disbursements, and the care of the material interests of the institution. In such a case the superintendent must choose as to which duty he will perform and which he will neglect, and what he cannot do for his patients must be done by his deputy or assistant.

"The superintendent should not, in the opinion of the Commission, engage in any thing that has an exacting claim on his time and attention, or which can conflict with the claims of his patients.

"They should engage in nothing that will engross their attention from the varying and capricious wants of the insane, and more especially, they should at no time be engaged in permanent duties, of a public or private nature, unconnected with, or outside of, those pertaining to their hospital."

"*Should the internal management of hospitals be regulated by special statute?*" In answer to this important query, the Commissioners remark:

"The interior management of hospitals, and the treatment of the insane cannot be regulated by law. It would be as absurd and futile to attempt, by statute, to regulate and control the minute and subtle details of mental hygiene and therapeutics in our hospitals, as it would be to legislate how physicians should treat fever; or how or when a surgeon should amputate in a case of gangrene; or even to place on the statute book laws, with penalties, for guiding the practice of a shipmaster when in peril of shipwreck, with hundreds of alarmed passengers dependent for safety on his free will, cool head and skilful hand. The entire management and treatment of the insane must be confided to the humanity and skill of the superintendent. His authority must be personal. There can be no divided responsibility in

the medical treatment of the insane, yet every guard and check should be supplied to detect venality or neglect of official duty in the officers of our hospitals. In this connection appears the importance of selecting faithful, fearless and practical men on the several Boards of Trustees. The Commissioners regret to say that unfortunate appointments have sometimes been made to the Boards of Trustees."

True words these—judicious, sensible and pertinent. Equally just, and equally to the point, (with one exception,) are the following remarks:

"It has been suggested that there should be so-called protectors of the insane, to have no connection with any hospital, either as officers or trustees, who should have authority at certain, or at all times, to visit these institutions, and examine the patients in general, or particular patients, and decide the question of the propriety of their retention; and, by special statute, that patients should, from time to time, be permitted to write letters to their friends or others. One objection to this is that the persons thus chosen, unless as a permanently organized public board, can be no more depended upon than the trustees of each institution already appointed, and certainly cannot be supposed to be such judges of insanity as those who have made the disease a study, and who have opportunities of observing the patients in question from day to day. But the most serious objection arises from the effects that such visitations must have on the patients themselves. A number of cases have been brought to the notice of the Commission, where the unadvised visits of friends have recalled feelings and associations of which time and change of circumstances had effected the removal, and when a continuance of the same system might, if uninterfered with, have led to a permanent cure. The same result would arise from the permission to write letters constantly to friends. The first condition of restoration is that the patient be separated from all the scenes, ideas and associations, amidst which or out of which his malady arose, and which tend to keep up his delusions, excitements or depressions. The faithful physician avoids even allusion to these. He discourages conversation upon them, and yet the patient's proclivity is towards them, and he will talk about them if he can get any one to listen to him. But he prefers to write to his friends, for he can talk to them though absent. His letters, therefore, excite him and keep him in a morbid state of mind. Under such circumstances, the trustworthy manager of the insane discourages the practice in the early stages of treatment, and until he sees it can be done without detriment to the patient's health."

To these proposed "protectors of the insane," the Commissioners object, and (as we see above) with excellent reasons. They would be unqualified nuisances,

unless, indeed, they belonged to "a permanently organized public board." And, in accordance with this idea, the Commissioners, in winding up their report, recommend to the Legislature of Massachusetts,

"The appointment of a permanent Commission in Lunacy, whose members shall be the real guardians of the insane, both before and after commitment, to whom appeals may be made in all cases of doubt as to the propriety of continued confinement, who shall scrutinize all admissions, and who shall have authority to visit any and all lunatics confined in the Commonwealth, and to discharge patients and rectify abuses."

Now we must confess our inability to discern any great difference between those "protectors of the insane," whose appointment somebody had proposed, but whose probable action and influence are so well shown up by the Commissioners, and the board of visitors which they advocate. The "so-called protectors," if appointed, must have been a visiting board, with some degree, at least, of organization and of permanence. More complete organization — greater permanency — cannot remove the objections so forcibly put by the Commissioners. Those evils are inherent. They belong to the very nature of the case. All that the Commissioners say in the way of objection, and much more than they say, is applicable to the very commission which they propose; all the more so, in fact, because it would organize and perpetuate the mischief. The broad principle which should govern all legislation on such a point, is contained in the words already quoted from this report: "There can be no divided responsibility in the medical treatment of the insane." "The entire management and treatment of the insane must be confided to the humanity and skill of the superintendent. His authority must be personal."

On this subject we would advise the Legislature of

Massachusetts to adopt the reasoning of the Commissioners, and to dismiss their recommendations.

To all Legislatures, in which propositions of this kind are likely to come up, we commend a careful perusal of the following remarks. They are taken from the report of a committee, made last May at the annual meeting of the Association of Medical Superintendents of Hospitals for the Insane, and are from the able pen of Dr. Isaac Ray:

"In view of the insufficiency of legal enactments to meet all the requirements of the case, many discreet and intelligent men are of the opinion that a supervisory power should be lodged somewhere for the purpose of correcting mistakes, preventing abuses, and doing justice generally between the insane and their friends. They would have a special, permanent commission whose duty it should be to investigate every case of doubtful insanity in the hospitals, or of alleged unfitness for hospital treatment, and to discharge the patient if they think proper. And in some other respects, the interests of the insane might be confided to their oversight. The arrangement looks well, and it is not strange that it should have found favor with intelligent men. Considered, however, under the light of practical experience, and our knowledge of the ways and habits of men, it appears to us preeminently calculated to do more harm than good. Such a commission would be led to its decisions by no fixed principles of law or science. Indeed, it is regarded, probably, as the principal merit of this provision, that it would be governed solely by an enlightened sense of honesty, justice, and fair dealing. This would be a merit, certainly, were the question to be decided one that could be readily understood and appreciated by ordinary men. But here are professional points to be considered, and, with the best intentions, cannot be decided correctly without the knowledge of an expert. A disposition to do what is right is but a poor preparation for a scientific inquiry—it may be even a dangerous one. What cares a man for the scientific bearings of a question, who looks only at its moral aspects, and is sure that he cannot be misled by his own honest sentiments? In the class of cases, where the interference of the commission would be considered as the most desirable, there are always facts on the true significance of which the question of sanity or insanity must turn. If in any given case, the conclusions of the commission coincide with those of the officers of the hospital, the fact may inspire fresh confidence in the latter, and to that extent be of some service; but if, on the contrary, they differ, it is not easy to see why the decision of the commission, not one of whom may have had any prac-

tical knowledge of insanity, can be more reliable than that of the officers whose field of observation may have been before them for years, and embraced thousands of cases. If it is to be considered a part of the duty of their office to visit the hospitals of the State, and investigate the case of every patient who complains of being unjustly confined, one can scarcely exaggerate the amount of mischief they would accomplish. And if, among the scores of cases to which their attention must be called, they should happen to find one unjustly detained, the service thus rendered would be dearly purchased by the restlessness and disappointment to which all the rest would be subjected. We may well ask, therefore, whether the object in view cannot be as faithfully accomplished by some other agency, without all this fruitless annoyance. We think it can, and we see such an agency in the Board of Trustees, Directors, or by whatever name they may be called, to which the general management of every hospital is entrusted. No interest could possibly prompt them to do otherwise than right, or give them an improper bias. The only bias under which they might act, perhaps, would be a wish to avoid the annoyance attending the detention of an equivocal case, by discharging the patient too readily."

The Insane in Private Dwellings. By ARTHUR MITCHELL, A. M., M. D. Edinburgh: Edmonston & Douglas. 1864.

This treatise, by the Deputy Commissioner in Lunacy for Scotland, has for its object, to exhibit the condition of the insane in private dwellings in that country, and to recommend this mode of provision for an increased number of chronic cases of insanity.

On the first of January, 1862, the total insane population of Scotland was 8,207, of which number 3,628, or 44 per cent., were in private dwellings. "This class," Dr. M. justly observes, "is too large to be treated with neglect or indifference, and no scheme for the care and treatment of the insane would be complete which lost sight of it." The number is indeed large, both in itself and relatively to the sum total. Many of our readers, we believe, would be surprised to learn that nearly half the insane of the United States are unprovided for in

hospital, receptacle, or even alms-house. But the author has had opportunities of knowing that in England, France and Belgium the number of insane living in families is also large, and considers that "in this respect there is no wide difference between any of those countries of Europe which are comparable as to their general social condition." There are no data by which any American State can be brought into this comparison. In the very careful and minute statistics of insanity taken, ten years ago, in Massachusetts, there is, unfortunately, no distinction made between the insane in private dwellings and those in town or city alms-houses. These classes together form 48 per cent. of the whole number of lunatics; and if the number of idiots provided for in the same manner were reckoned, (as was done in the Scotch statistics,) the ratio would be greatly increased.

It is well known that the attempt to distinguish between lunatics and idiots in our census reports has been found impracticable, and, if we may trust the experience of other nations, it may as well be given up. The curative treatment of lunatics is not, certainly, the whole office of government in respect to the insane, and between incurable lunatics and the imbecile or idiotic no distinction is of any practical use. This fact is recognized in the Scotch Lunacy Law, which broadly provides for all cases of mental unsoundness, acute and chronic, congenital and acquired, in the land. Thus, even the non-pauper insane in private dwellings come under the notice of the Lunacy Board, who may advise or remonstrate in case of improper treatment, or denounce, if necessary, to the criminal tribunals. Of this class, about 80 per cent. were placed with relatives, and 20 per cent. with strangers. Only 27 per cent were cases of acquired insanity; the

remainder being about equally divided between idiocy and imbecility.

But it is of the pauper insane in private dwellings that Dr. M. chiefly writes. Their number is nearly twice as great as the non-pauper class, and is constantly receiving recruits from it, at a rate which will surprise no one who has recognized the pauperizing effects of mental disease.

Of the relations of the pauper insane in general to the Board of Lunacy, Dr. M. states as follows:

"It is the law of Scotland that all pauper lunatics must be placed in the asylum of the district to which they belong, unless removal has been dispensed with by the Lunacy Commissioners, and arrangements in private dwellings made to their satisfaction. In other words, if a person who is a lunatic becomes a pauper, and if it is proposed to place him or leave him in a private house, the sanction of the Board of Lunacy must be applied for and obtained, and so in like manner with those pauper patients who are removed from asylums and placed in private houses. If the lunatic is to be boarded with a guardian, who is not related to him, then in addition to the sanction of the Board, the warrant of the Sheriff must be obtained. In all cases, however, pauper lunatics in private dwellings are under the supervision of the Board. The Commissioners can withhold or withdraw their sanction, and in case of the refusal or failure of parochial boards to carry out the requirements of the Statute, they can take whatever steps may be necessary for the removal of the patients to asylums."

Thus the Board is made directly responsible for the proper keeping of all pauper lunatics in private dwellings. The number so provided for, on the first of January, 1862, was 1,741, or one third of all the pauper insane of Scotland. These, it is understood, were all incurables of a harmless and manageable class. The office of Commissioner must, however, be no sinecure, as may be seen from the following statement:

"From January 1858 to the end of 1862, 4,922 visits were paid to the dwellings of these patients, and a separate report on each visit was forwarded to the Board. In addition to this, 304 reports were

received, which were founded on information communicated by others, where circumstances prevented personal inspection on the part of the Visiting Commissioners, who were further required to submit to the Board from time to time a generalized statement of their observations."

A principal object of these visitations was, of course, to effect the removal to asylums of the probably curable, those dangerous to themselves, and those specially difficult of care. Another equally important purpose was, to insure the proper treatment of those whose removal to asylums was not deemed necessary. The knowledge of the condition of all the insane in private dwellings derived, in five years, from 10,000 reports regarding them, deserves great confidence. The disposal of each case was determined, not by any general theory, such as of curability or incurability, but in the light of all the facts belonging to it.

In describing the condition of the insane in private dwellings by notes of cases, Dr. M. presents the dark side of the picture, in order to point out errors and abuses to be corrected. Certainly, some of the scenes presented are dark enough. But instead of transcribing them, we shall rather repeat the assurance that much has been, and can yet be, done, apart from the aid of asylums. What most interests us, is to know how this has been brought about. The theory of our government certainly allows less interference by the central with the local authorities than in Scotland, but practically much the same measures may be adopted here as there. We are by no means of the opinion that it will be necessary to encourage the keeping of the insane in private dwellings in this country. The very reasons—given with perfect frankness and candor—why this has been done in Scotland will convince the American reader that the example need not be followed where the conditions are so greatly different.

But every consideration requires that some general system, which shall include at least the supervision of the entire class of pauper and indigent insane in each State, shall be speedily adopted. If the voice of humanity has not hitherto been enough to call forth such a system, that of economy must soon prove irresistible for that end.

The first cause of the good results obtained under the Scotch Commission is due to system itself; to comprehensive, definite and congruous rules of action. Another, already referred to, is the provision for the inspection and report upon each particular case. This has incidentally made possible a degree of publicity in regard to the insane poor which before was wanting. In consequence, an increased liberality of view upon the whole subject has been manifested by community. But the most direct good has been done here—as in so many other interests—by bringing to bear upon the matter two direct and somewhat opposed lines of effort; that of the parochial Board, local and narrow but practical, and that of the lunacy Board, scientific and liberal. Under a sufficient asylum provision, such as the JOURNAL OF INSANITY has so long urged in this State, these might have their counterpart in our Boards of county supervisors and Boards of managers of asylums. As it is, the managers of asylums, from being unable to receive into their institutions more than a small fraction of the insane, can do but little, comparatively, for the large number remaining in the poor-houses and private dwellings. Perhaps a plan of this kind is not now a practicable one, but the necessity for some system was surely never so great as at present.

Dr. M. proceeds to reason, very fairly and cogently too from the facts in his case, in favor of increasing the

number of public patients in private dwellings in Scotland. He has just been depicting the abuses which were found in connection with many patients thus placed. But he asks, "would it have been reasonable to have wiped public asylums out of existence, or condemned them as pernicious and useless, because at one time (and that within the memory of the living who are not yet old,) all accounts of the condition of the insane in them were little other than a revelation of the most frightful horrors?" However facts unknown to us may bear upon the question at issue, we believe the theory of Dr. M. to be correct. The effort of the practical reformer should be, not so much to create new methods and new instruments, but to develop and adapt the old. In this country, there is not that deeply-rooted antipathy to all public institutions for the insane which unhappily has long prevailed in Great Britain, and still tends to keep a great proportion of the insane under private care. But such a feeling will no doubt grow up, unless the interests of the pauper insane are guarded by some efficient system of inspection, and intelligent supervision. If this is soon devised, there will be little difficulty in securing for all cases a proper curative and custodial treatment in public institutions. If the work is left until too late, we shall not escape the inevitable evils which our British friends are now combatting, and between which they too often have to choose.

One more point which Dr. M. makes is, substantially, that the cure of the insane is one of public charity and humanity, and not a duty made by a balancing of expenses. We shall indeed convert some non-producers into producers by curative means, but the lives of the incurable will be prolonged as the standard of provision

for them is raised, and the burden of insanity will, for a time at least, inevitably increase.

In Scotland we see, then, that through the constant and strenuous efforts of government all classes of the insane are reached, and receive each their share of the public bounty and protection. But the pecuniary burden is a very heavy one, and the movement to extend the plan of private dwellings for the insane may be said to be, in fact, an effort to make a constant supervision of the insane in their homes a partial substitute for the more expensive means of support in a hospital or receptacle. At any rate, what Dr. M. rightly deems "the ultimatum and perfection of good management in this matter," is sought for, and in a good degree obtained. This is, "not to bestow a spurious and costly care on the few, but to make a reasonable and substantial provision for the comfort and well-being of the many—of the whole if possible; and the more cheaply this can be done, if nothing *right* be left undone, the sounder is the beneficence and philanthropy."

Du Goître et du Crétinism. Par Dr. A. Morel. Paris: 1864.

This memoir, by the distinguished chief-physician to the Asylum of St. Yon, appears in four numbers of the *Archives Générales de Médecine*, concluding with April, 1864. Dr. Morel is one of a commission, appointed by the French government in 1862, to inquire into the subject of goitre and cretinism in the Empire, and recommend proper measures to be taken against these allied disorders. The present paper is, however, his individual work, and is written to excite a more general interest in

the important and extensive field of labor to which the commission is devoted.

The work of sifting and comparing the mass of facts and opinions which has been contributed to this subject, is indeed a timely one. The governments of all the countries where cretinism prevails have shown a desire to adopt any measures which promise to be effective against this great evil, and only wait for science to decide what those measures shall be. It is pretty well understood, both from the analogy of kindred diseases and from the results of experiments made, that the treatment adopted must be in the main prophylactic and hygienic. A scheme the chief features of which should be the curative treatment of cretins, when the extent of such an undertaking is considered is now admitted to be impracticable. But beyond this point it is held that but little has yet been decided. Government and public opinion look to scientific men for counsel, and "Science has not yet said its last word."

The first important step taken by any European state toward the amelioration of this evil was that of the Sardinian government, in 1845. A permanent commission, having its resident and corresponding members, and including the most learned physicians, chemists and geologists, was formed, and a programme of operations agreed upon. Every means was afforded for obtaining the statistics of cretinism, delegations were sent to visit the localities of the disease, and these inquiries were stimulated by prizes offered for the best essays upon the subject. This example was followed, in 1850, by the Austrian government. The Sardinian commission made a most interesting and valuable report in 1848, and in 1861 that of Professor Skoda, in behalf of the Austrian

commission, was published. It would seem to be in great part upon the labors of these commissions that Dr. Morel bases the opinions and practical views which we shall notice on another page.

In 1862, the French government, in its turn, appointed a commission to study the subject of goitre and cretinism, and recommend means of prevention and cure. This learned body, under the presidency of Dr. Rayer, is still actively engaged upon an extensive programme, embracing the entire statistics, etiology and prophylaxis of the disease. Awaiting the increase of knowledge which is to be the fruit of these labors, Dr. Morel proceeds to give the conclusions at which science has arrived on this subject, up to the present time.

Goitre may be defined to be an hypertrophy of the thyroid gland, and is developed under two forms, acute and chronic. Acute goitre generally prevails as an epidemic, and is no doubt due to atmospheric influences, which belong to certain localities, and certain seasons of the year. This form does not seriously affect the general health, and quickly disappears under a change of air, and the use of iodine. Chronic goitre, developing itself slowly and insidiously, either in localities where it is endemic, or sporadically, is a much more serious thing. It is connected with a most formidable cachexia, which manifests itself in a peculiar kind of idiocy, depravation of the blood, and a premature decay of the vital powers.

When goitre is of recent origin, all the vascular tissues near the thyroid gland participate in the enlargement. No well defined tumor is apparent, but the whole anterior and lateral portions of the neck are increased in size. The superficial veins are swollen, but as yet there is no discoloration of the skin. These changes take place so

gradually as to be almost unperceived. Sometimes a feeling of *malaise* accompanies them, but there is no fever. The eye of the patient is bright, the complexion fresh, and he seems in perfect health. This is the hyperemic or diffused stage of goitre, and it is now that proper hygienic and medical means may be used with the happiest effect.

But the disease soon passes on, if uncured, to the anemic or degenerative stage, and the symptoms of the goitrous diathesis announce themselves. The patient emaciates, his skin assumes a peculiar color, his face loses its freshness and becomes wrinkled. The general tumefaction of the neck is less marked, but the hypertrophy of the thyroid body is increased, and its outlines are better defined. Such a goitre can hardly be termed curable. The rôle of the physician is now to ameliorate the condition of his patient, and if he has children to apply the principles of mental and physical hygiene to their cure.

This special treatment of the children of goitrous parents is, of course, to prevent or limit the terrible affection of cretinism, into which goitre is so often transformed by inheritance.

The cretin is a kind of idiot, distinct from all others, both in the mental and physical marks of degeneracy. His stature is below the medium, his limbs lank, ill-proportioned and little vigorous. His chest is narrow, head large and malformed, hair coarse and bristling, abdomen sunken, skin rough, pale and sodden. His gait is feeble and uncertain. As to his features, the forehead is low and retreating, the nose flat and enlarged at the sides, the eyes bleared, and their lids flabby and weak. The face is furrowed by enormous wrinkles, and made still

more ugly by an exaggeration of the zygomatic arch. The mouth is of enormous size, the lips large and swollen, and, in the worst cases, the tongue hangs out, and the saliva flows freely. The teeth are irregular, and in some cretins there is no second dentition. The organs of generation are undeveloped. In some cases the thyroid gland is atrophied.

Such are the typical characters of cretinism, or the idiocy of the Alps, as it has been called. It is found, however, not only in the Alpine valleys, but in the Pyrenees, the Cordilleras, and other mountainous regions. It prevails, also, in certain alluvial valleys, as along the Rhine, the Rhone, the Danube, etc. But in the latter localities the cases are less numerous and of less malignant type than in the former.

Upon the etiology of cretinism and its connection with goitre, Dr. Morel is decided in his opinion. The goitrous cachexia in the parent produces cretinism in the children. Goitre is acquired; cretinism is congenital. Yet although thus connected, these diseased conditions are not the same. Men of rare talents have been goitrous. Goitre is not inconsistent with perfect health. Finally, goitre may be cured; cretinism is incurable.

But this connection of goitre and cretinism has been denied. In many countries where the former is sporadic only, the latter is unknown. And again, if goitre in the parent is once transmitted as cretinism to the child, why not always? Dr. Morel supposes that the morbid element may not become powerful enough to produce this result in the first generation, but will do so in the second or third. He also suggests that this element contributed to the new being by one parent may be extinguished by the "*bonne nature*" of the other. But he does not notice

the double law of transmission, so well stated by Dr. Ray, in his work on Moral Hygiene. According to this, there would be in the generative force of the goitrous patient himself a double tendency; that is, to reproduce the type of the species, and also that of the individual. It is thence easy to understand that cretinism is strictly inherited from goitre, while yet not all the children of goitrous parents are necessarily cretins.

In his second article, Dr. Morel gives a history of the opinions which have prevailed respecting the etiology of goitre. The earliest writers upon this subject were of the sixteenth century. By them, and according to popular belief, the potable waters were supposed to be the sole cause of the malady. It was, however, soon demonstrated by a comparison of observations made at different places, that other causes must also exist. Among these, an important place was given by Haller to the damp and impure air which belonged to the goitrous districts. Other observers supposed a peculiar morbid element in the atmosphere, and others still named the various hygienic defects, now placed in the list of secondary causes, as the conditions to which goitre is chiefly due. De Saussure, a learned naturalist of the last century, founded his theory of causation solely upon a certain height above the sea of the valleys in which goitre was endemic. The conclusions of Dr. Morel upon this point are given in connection with his views of prophylaxis and treatment.

The causes of endemic goitre are found in certain special constituents of the soil, the toxical effects of which are favored and developed by excessive humidity, and all the conditions which tend to lower the health of

communities. Among these, are the bad quality of potable waters, and the insalubrity of dwellings.

In those localities where goitre is endemic, we must suppose the existence of a kind of malaria, which produces a special diathesis in the inhabitants.

This toxical element does not always manifest itself in goitre, but affects the cerebro-spinal system, revealing itself by the enfeeblement of the physical powers, and the degradation of the intellectual and moral faculties.

The apparently healthy portion of the inhabitants of goitrous districts are not entirely free from morbid symptoms, which show a special impression upon the typical character of the race.

Affections of the lymphatic and osseous systems prevail where goitre is endemic. We also find there more than elsewhere, the scrofulous and lymphatic temperaments, rachitis, divers malformations of the bones, and deaf-mutism.

Cretinism is a kind of degeneracy whose origin must be sought in the morbid states of ancestors. There are different varieties of cretinism.

The morbid conditions are sometimes so powerful as even to affect the fœtus. This explains the congenital cretinism of infants born of parents who have come from a foreign country to live where goitre and cretinism are endemic.

In all countries where goitre is endemic, cretinism is found.

The only exception to this law are those countries where powerful health-giving elements antagonize the goitrous cachexia. It is these exceptions which have given rise to the belief that cretinism is an affection independent of goitre. But even where goitre exists with-

out cretinism, the vitiated health of the inhabitants is revealed by certain characteristic signs.

As a rule, goitre is only the first symptom of an affection of which cretinism is the ultimate form, by hereditary transmission.

The intimate study of facts considered in their pathogenic evolution will lead every impartial observer to the belief, that where cretinism does not appear in connection with endemic goitre we shall find, more than elsewhere, scrofula, rachitis, deaf-mutism, and the various forms of degeneration included under the names of idiocy, imbecility, feebleness of constitution, &c.

Iodine is incontestably a specific for goitre, but this agent and its various preparations do not suffice to banish the endemic goitro-cretinism which belongs to any country or locality. There is needed, besides, a prophylactic and conservative hygiene.

But the apathy and indifference to the hygienic means which prevail among the poverty-stricken inhabitants of goitrous countries render necessary some comprehensive system of regulations, to be prescribed and enforced by government. The scheme suggested by Dr. Morel for this purpose is most elaborate and comprehensive, but need not be given in full in this place. It includes the appointment of a permanent central commission at Paris, and sub-commissions in the several goitrous districts. These bodies are to have both administrative and scientific duties; to make stated reports, establish prizes for the best papers upon goitre and cretinism, and take the initiative in all measures they may deem necessary to the practical success of their mission.

In this country, as yet, the evils of goitro-cretinism have not become prominent. This is probably because

the migratory habits of our population do not afford the conditions under which the causes of this evil operate. There is little doubt, however, that these causes exist, and will at some future day claim the notice of our profession. We who are devoted to the treatment of the insane have already noticed the frequency of goitrous necks among this class, and have had to adopt some plan for their cure. Ought we not to make particular inquiry into the origin of cases that come under our notice, and record these with the other statistics of our institutions? In this way we shall be prepared to give an intelligent opinion upon a subject which we may be sure will become an important one whenever the population of our country shall have become more crowded and permanent.

A Study of Hamlet. By JOHN CONOLLY, M. D., D. C. L., Fellow of the Royal College of Physicians. London: Edward Moxon & Co., Dover street, 1863.

This admirable little book is, undoubtedly, the most complete and satisfactory treatise on this, the greatest of Shakspeare's dramatic characters, that has hitherto been given to the world.

Many able men have written on Hamlet, and written well; but all, so far as we know, have confined themselves within the narrow limits of a magazine article. The subject is well worthy of a volume, (indeed many might be written upon it,) and, in this instance, the volume is worthy of the subject. Dr. Conolly has brought to the task he has undertaken all the qualities of mind necessary to grapple with it successfully; and precisely the kind of knowledge, without which no one can analyze the character of Hamlet with any approach to scientific or psychological accuracy.

The same views as to the real madness of Hamlet have been enunciated in the pages of this JOURNAL from its commencement, more than twenty years since, by Dr. Brigham, Dr. Ray and Dr. Kellogg, and though we find little that is new—little that has not already been glanced at by these writers, the subject has, in this volume, been more carefully amplified, and the character more completely and extensively analyzed than by either, perhaps we may say by all of them. As a piece of Shaksperian criticism, to the psychologist it leaves nothing to be desired, and we cordially commend it to the perusal of every lover of Shaksperian literature.

SUMMARY.

PLEA OF INSANITY IN THE CASE OF GEORGE BRYCE.—The trial of this case, in May last, before the High Court of Justiciary, Edinburgh, is of interest as showing the manner in which the defense of insanity is received by Scotch court and jury. Our notice is based upon a brief report, contributed by a legal gentleman to the *Edinburgh Medical Journal* for July.

George Bryce, a young man, son of a farmer, of vagrant and dissolute habits, and when excited by drink very violent and wild in his behavior, went one morning to a neighbor's house, and inquired for Jeanie, a servant there. Getting no answer, he made his way into the nursery, where he found the young woman, whom he immediately attacked, and threw down. The mistress coming in he

desisted, and Jeanie ran away. He followed her into the road, again threw her down, and, with a razor which he had, cut her throat. She died almost immediately. The murderer endeavored to make his escape, but was followed and taken. In the pursuit, he twice threatened to take his own life with the razor, and tried to use it against those who followed him. When told what he had done he replied: "She's cheap of what she's got." A few hours after the murder, in his judicial declaration, he denied having any recollection of seeing the deceased that day, or of doing anything to her. He did remember seeing the person of whom he had inquired, and recognized his cap, left in the nursery, and the razor as his.

The incentive to the homicide was no doubt the real or supposed fact of the murdered girl having told Lizzie Brown, to whom Bryce was attentive, that he was "a drunken blackguard." There was no proof that Jeanie Seaton had made this charge, or that he had heard she had; yet something of the kind seems likely to have been said, and repeated to him.

The only question, then, was as to the prisoner's mental condition. Was he sane or insane at the time of the murder?

Five persons, who had known him more or less intimately, testified that they never thought him insane. A medical man who had known prisoner all his life, and often warned him against his habits of drinking, saw him soon after the murder, and was satisfied of his sanity. The police surgeon thought him quite sober and rational on the day of the murder. He asked prisoner if he knew that to kill another was a crime; and the reply was in the affirmative.

The father and mother of prisoner, and three persons not related to him, gave testimony tending to show his insanity.

One witness testified that prisoner used to be riotous at his father's house, and would say when sober that he had no recollection of what had taken place. It appeared to this witness that there was "a want" about Bryce. "He appeared sort of silly, easily advised, and easily led away."

Another witness also thought that prisoner had "a want." This showed itself in irrelevant answers to questions. "His talk was rambling, and in the course of one conversation he would refer to many subjects." On one occasion being corrected mildly in some statement, he drew a clasp-knife from his pocket, and said he would stab any one who said he was wrong. "When he had the knife in his hand he seemed to be very wild." He was then perfectly sober. On being reminded of his behavior the next day, he denied all recollection of it. Witness stated these facts to several persons, who said that Bryce "was thoughtless, and did not mind what he did." Once, on being turned out of his father's house for some act, he was absent two days, and was found lying under some straw in a stable, nearly exhausted. He said he was "only taking a rest to himself." At his side lay a knife, with which he said, on being questioned, he was going to cut his throat. Very frequently he wandered away from home for days. Witness saw him once walking to and fro in Norton Wood. He said he was "taking a walk to himself." He looked worn out and fatigued, but was sober. The boys in Ruthe said of him, "Here comes daft Geordie Bryce."

The master of a railway-station testified that he would

have trusted prisoner with nothing about the railway. He had given an express order that Bryce, who was often at the station, should not be allowed to meddle with the points. He would far sooner have trusted a child ten years of age. He always considered him of good temper, civil and obliging, but "half daft." His manners and conduct were strange, and his memory very defective.

Bryce's father testified that this son was from childhood very different from the other children. His peculiarities had increased as time went on, but especially so within the past few years. He was five years in the militia. Afterward, when at home, he was never set at any work but that of driving a cart. He was in the habit of wandering from home for several days, and never told where he had been. On Sundays the family took their meals together in the parlor, but George preferred to eat by himself, in a corner of the kitchen.

About three years ago he appeared to be more peculiar. He became restless night and day, and began to drink a good deal.

One year ago a still further change for the worse was apparent. He drank less, but fell off in flesh. Six months later he had a fit of drinking and became very outrageous. Being handcuffed, he went to his room and took up a razor. A physician was sent for to see him. He had previously taken a rope and locked himself in the stable. He slept in the barn two nights the week of the murder, but the night preceding it he slept in the house with his brother, as usual. The only insanity known to have been in the family was that of a maternal great-uncle, and another ascendant still further removed in the same line.

Two gentlemen were examined as experts in mental disease; Professor Laycock of the University of Edinburgh, and Dr. Robert Ritchie, a well known physician, formerly medical officer of a private asylum in London. They were allowed to remain in court during the trial, and had repeated opportunities of examining the prisoner in the jail. Their opinions as to the sanity or insanity of the prisoner at the time of the murder, and at trial, were given directly to the jury.

Professor Laycock testified: "I do not consider him to be in his sound senses. I do not think that on the morning of the murder he was in his sound senses." He found in the prisoner "a low type of physical organization." This was denoted by "the form of the head, the face, the jaws, and the mode of articulation." His general view of the case was, that Bryce "had been in a morbid state for some years back. About twelve months ago he began to suffer a further change of a morbid kind, which we term chronic dementia, and which in similar cases has been observed to pass into complete dementia." In regard to his special mental condition at the time of the murder, Prof. L. testified: "I think at the time he was suffering from maniacal excitement. That fit might come on suddenly, and go off suddenly. This is not uncommon in homicidal mania." The gentleman also believed, that prisoner did not remember having committed the murder, and was quite sure he was not feigning.

In the cross-examination, Prof. L. gave as his opinion, that after Bryce had been told he had killed Jeanie, he ran away, "through fear, apprehension, delusion." He thought the attack on the girl "had to do with the prisoner's enmity, but was not to gratify that enmity." As

to whether he knew who the girl was when attacking her, Prof. L. had no opinion. He had no "medical opinion to the effect that prisoner did not know what he was doing." He further said: "I do not assume that he knew whether what he was doing was right or wrong. I think he did not know what he was doing. I think his delusion was that he thought Jeanie had called him a drunken fellow. If that was no delusion, then there was no delusion in the case at all. I have frequently known cases of insanity with no greater delusion than this. I think he showed he was an imbecile in memory and judgment."

Dr. Ritchie's opinion differed but little from that of Prof. Laycock, except that he termed the general condition of Bryce for the year past monomania rather than dementia. The single delusion which marked this was that already referred to. He could not say whether prisoner thought it right to kill the girl, or whether he knew what he was doing at the time, but concluded: "My opinion of the matter is, that he was acting under a delusion, and while under the delusion he had a sudden monomaniacal paroxysm, and in that paroxysm he committed the murder."

The Lord Justice General, in the course of his charge to the jury, laid down the law in respect to insanity as follows:

"Insanity in a general sense may be of various kinds. It may be imbecility or fatuity. That is not the case before you. Or it may be violence—a mania leading to violence, which is said to be the case before you. That may be of various kinds, but what we have to deal with here, is said to be monomania. It is said that in a paroxysm of this disease the prisoner committed the offence. *The disease is what constitutes the unsoundness*, and the paroxysm is only an event in the course of the disease. Now the opinion expressed in substance by both the medical gentlemen is, that he was at the time under an insane

delusion—*a delusion which shows that he was insane*—and that it was acting under that delusion that led to the perpetration of the act, and that in consequence he is to be regarded as a person not responsible for it."

Upon the nature of the question to be decided, it was charged:

"It is a question on the whole facts of the case; it is not a medical question. The medical gentlemen have opportunities for observation which make their testimony frequently very important in reference to such matters; but the question is not a medical question; it is a question of fact whether the insanity amounted to this, that he was doing a thing which he himself considered, and had grounds to believe, and respecting which his belief was a sincere one, that he was warranted in doing—whether he really believed that something had occurred which would be a ground for taking away the life of this unfortunate girl. It is a question for you whether his state of mind was such as to warrant you in sustaining this defence. It is no doubt true that, if the result of your inquiry should be that the prisoner committed this act in a state of insanity, he would not be let loose on society. The public must be protected against persons who have uncontrollable passions, but I can by no means endorse the doctrine that seems to be held, *that when a man cannot control his disposition to do an act he is not responsible for it.* Nothing is more common than a person being unable to control his passions. His passion gets the better of him, and he becomes for the moment beyond control. But merely because you call it a paroxysm of monomania, that is not a reason for holding that such persons are to be held out of the pale of the law in regard to answering for the consequences of the crime they commit."

The theory of imbecility is referred to in conclusion:

"*There is no proof that he was an imbecile*, or that he was not trusted in the work which he did perform. Sometimes, it is said, he left his cart in jeopardy; sometimes he left his horse and cart altogether, and did not appear for days. He is a person, it appears, of erratic disposition—and this tendency may account for all that—but that he did carry on his occupation, and that he was regarded by those persons who came in contact with him as perfectly competent to do these things, and not as a man who was exempt from responsibility for the consequences of his acts."

There is much in this charge on the theory of delusion and monomania, with which we entirely agree. It seems to us not proved that Bryce had any definite delusion. If he had one, as supposed, it certainly was not

necessarily an insane delusion, and could not go far to prove his insanity. That the view of the house where Jeanie lived threw her murderer into a paroxysm of delirium, in which he committed an act leaving no traces in his memory, we see no good reason for believing. The want of recollection of the murder was very likely feigned, and the prisoner is said to have afterward confessed as much. But there is nothing in the trial, as reported, to show why the charge is so exclusively devoted to delusional and homicidal insanity. We think the learned experts did err in resting their opinions at all upon a monomania of revenge or of homicide. But Prof. Laycock, in answer to a question by the court, testified that his belief of the prisoner's insanity did not depend upon whether or not he committed the act. He plainly characterized the mental state of prisoner as one of chronic dementia, and the fair inference from his testimony, as reported, is, that he considered Bryce's insanity to be primarily a case of this kind. His evidence closes as it began with this opinion: "He is laboring under insanity—a form of chronic dementia, which will go on increasing." Why, then, is it that this and the testimony of other witnesses to the fact of dementia or imbecility is not noticed in the charge? Whether there was "no proof" that prisoner was an imbecile was, it should seem, not for the court but for the jury to say. Certainly there was direct and important evidence in support of such a view, and it deserved, we think, a different notice from the court.

A very common error in medico-legal definition is noticeable in this charge. An insane delusion is not, as there stated, a delusion which shows its subject to be insane. Many notions which we recognize in our patients

as insane delusions, are held by many persons whose sanity is not to be denied. Delusions are not "insane" unless there is other proof of insanity than the delusions themselves.

The court charged that insanity is not a question of medicine. But neither is it one of law-logic. It is, indeed, a question "on the whole facts of the case," and refuses to be limited by the definitions of law as by those of medicine.

It is well known that this journal has steadily refused to recognize the special manias which have been founded upon some single passion or impulse. But we have never denied the common-sense doctrine, that "when a man cannot control his disposition to do an act he is not responsible for it." An exception to this is, of course, where a person directly deprives himself of self-control, as by intoxication. We only demand other proof of insanity than what may be inferred from the act itself. As no delusion is insane because of its absurdity, so no act can be deemed insane upon the mere supposition that it would not have been done if the actor could have refrained from it.

The responsibility of Bryce for this murder seems to us of that partial and modified sort for which the rough methods of the law do not provide. There was perhaps no delusion proved, certainly none which should justify the homicide. But unsoundness of mind was proved, and, we believe, to that degree which should have forbidden the extreme punishment of murder. So thought the jury, who, restricted to a finding of guilty or not guilty, returned a verdict of "Guilty, with a recommendation to mercy, on account of the low organization of

the prisoner." "In respect of which verdict," the reporter naively says, "the prisoner was sentenced to death."

And the poor wretch has actually expiated his crime on the scaffold! The question was not, then, one for the jury to decide. It was a contest between legal and medical logic, in which the latter overreaching itself fell, and its opponent bore off the prize. If this were the usual character of involving the question of insanity trials, we should rejoice in belonging to that profession which if it errs, does so at least on the side of humanity. But we will not be unjust. The general tendency of legal as well as medical knowledge is no doubt to render more charitable as well as more just our human judgments. If its progress is slow and halting, it is not often retrograde.

On the Psychological Differences which Exist among the Typical Races of Man.—The author maintained that the genus *homo* was distinctly defined, on the ground that in man's moral and religious attributes the inferior animals do not participate, and it was this that constituted the difference between him and them. The barrier was thus, he considered, impassable between man and the chimpanzee and gorilla; and that wherever man with his erect attitude and with his articulate voice is found, his claim to our common humanity must be immediately acknowledged, however debased the type may be. His conviction was that there was proof of a general unity exhibited in all the races of the great family of man, inasmuch as they were all endowed with the same intellectual faculties and mental activities, however much they may vary in degree. It had, he thought, been fairly argued that all the races of the human family form but one species, from the physiological fact that they are all capable of fruitful union. Believing the brain to be the material organ of the mind, the author considered the cerebral organization and development in the various typical races as one of the most effectual means of better understanding and elucidating the psychological differences which characterize them. The author reviewed what has been done by anatomists and ethnologists, and pointed out that the lower savage races, such as the Sandwich Islanders, made progress in the early part of their education, and were so far as apt and quick as the children of civilized Europeans; but at this point they stopped, and seemed incapable of acquiring the higher branches of knowledge. The Sandwich Islanders

have excellent memories, and learn by rote with wonderful rapidity, but will not exercise the thinking faculties; they receive simple ideas, but not complex ones. In like manner it was found practically that negro children could not be educated with white children. In all these cases, as well as in the minor ones continually occurring among ourselves, of inability to understand subjects and reasonings of a certain order, the true explanation is that the cognate faculties have not reached a complexity equal to the complexity of the relations to be perceived; as moreover it is not only so with purely intellectual cognitions, but it is the same with *moral* cognitions. In the Australian language there are no words answering to justice, sin, guilt. Among many of the lower races of man, acts of generosity or mercy are utterly incomprehensible; that is to say, the most complex relations of human action in its social bearings are not cognizable. This the author thought was in accordance with what *a priori* might have been expected to have resulted from organic differences in the instruments of the higher psychical activities—or, in other words, in the nervous apparatus of perceptive and intellectual consciousness. The leading characters of the various races of mankind were simply representatives of particular stages in the development of the highest Caucassian type. The negro exhibits permanently the imperfect brow, projecting lower jaw, and slender bent limbs of a Caucassian child some considerable time before the period of its birth. The aboriginal American represents the same child nearer birth; the Mongolian the same child newly born.—*London Intellectual Observer.*

Calamity and Loss of Life in an Insane Asylum.—We are called upon to record a sad calamity which recently befel a public institution of which we have the medical charge. At a little before six o'clock on the morning of the 20th of July, the foundations of a pier which was the central support of a series of arches which upheld a chimney-stack and walls on which rested the joists of the second, third and attic stories of a tier of wards in the transept of the women's portion of the insane department of the Philadelphia Hospital, gave way, and without the slightest warning the whole division wall and chimney-stack fell in with a crash, burying many of the patients in the ruins. Of these, fifteen were killed outright, or died very soon after they were extricated, and twenty-five were more or less severely injured, of whom two subsequently died. The wards in which the accident occurred, are forty-five by forty-eight feet in size, and the wall that fell divided them through the centre.

The ward on the first floor was occupied on one side of the arches as a sitting room for the epileptic and idiotic patients, about sixty in number, and on the other, as their dining-room and that of the colored patients, about thirty in number. Breakfast was just being prepared, and if the accident had happened fifteen minutes later there could hardly have been less than seventy-five killed on this floor alone. As it was, there were but three killed and a few slightly bruised.

Those in the sitting room were protected by the joists of the second floor, which fell in the centre but rested against the outer walls. The patients were left in the angle thus formed, mostly unharmed.

The ward on the second floor was all used as a sitting room for eighty patients, a large proportion of whom were carried into the vortex, and several were killed and wounded. A few minutes later these patients would have been at their breakfast, and perhaps every one escaped being involved in the catastrophe.

The ward on the third floor was used as an infirmary and was occupied by about twenty-five sick and infirm women, many of whom were in bed. Nearly all these, with the nurse in charge, were precipitated to the first floor, and a large proportion of the killed and injured belong to this ward. The nurse on this floor escaped most miraculously with a few bruises. The nurses on the two lower floors had providentially just left their wards.

The attic floor was occupied as a sleeping apartment by the washerwomen, scrubbers, etc., and they had just gone down.

It is remarkable that so few were killed and injured, and the injuries were much less severe than it was natural to expect. The only fractures were a clavicle in one case, two metacarpal bones in another, and two metatarsal bones in a third. The two of the injured who died subsequently can hardly be said to have died of their injuries, one being eighty-nine years old and very feeble, and the other a phthisical case, very far gone at the time of the accident.

We had thought it possible that so sudden a mental and physical shock might have a favorable influence on some of the patients. In two or three cases, we think, it did, for a time at least, stimulate the mental faculties, but we have seen no evidence of permanent good resulting from it.

Very singularly, the primary cause of the accident dates back nearly fifteen years, when, in introducing a heating and ventilating apparatus, the workmen in a most reckless and criminal manner cut through the solid wall in the cellar which upheld the central pier and chimney stack.

It was considered best, immediately after the accident to have all the women patients leave their wards, which were in close proximity to the one which was in ruins. This caused about three hundred and fifty insane women to be huddled together for nearly a day in a small yard with very inadequate arrangements for giving them food or drink, and yet so admirable was the control of the nurses over them, that but two or three cases of excitement occurred during the day. When, at night, it was concluded to be safe for them to re-occupy a portion of the building, many of them were very reluctant to do so.—*Medical and Surgical Reporter.*

Insane Colonies in France.—We have heard much of the advantages and disadvantages of the insane colonies so long established at Gheel; and it seems that the French Government has resolved to introduce the system. The Council-General of the Rhone has recently, with the approval of the Minister of the Interior, voted the funds necessary for placing out among families one hundred indigent insane persons whose mental condition does not necessitate their sequestration in an asylum. Upon the recommendation of the chief physician, the indigent insane, recognized as incurable and inoffensive, are to be removed from the Antiquaille Asylum, at present overcrowded with patients, and placed out. "Without doubt," observes M. Garnier, in the *Union Médicale*, "this example will become promptly contagious; and this will be much to be commended, providing that there be constituted a medical and administrative inspection of these patients as in the case of foundlings. Unable to restore their moral health to these poor creatures, we can at least provide for their physical well-being by this family regimen, life in the open air and varied labors, which are more likely to conduce to it than the residence in an asylum. For the safety of the families concerned and the success of the experiment, care must be taken that the persons selected are both incurable and harmless."—*Medical Times and Gazette.*

The State of Lunacy in Italy.—Italy, as a whole, is so newly formed, and at present so imperfectly consolidated, that it is hardly fair to discuss the asylums in the recently acquired dominions now dependent on the government of Turin. Most of these establishments are still found in the cloistered buildings in which they took their origin; and in many the religious orders conduct the routine under a medical director; but, without exception, these houses are condemned by the directors, and are manifestly unsuitable for their present purposes. In Piedmont, the asylums are, though old, larger and better than in Central or South Italy; and in Genoa, there is a comparatively modern one; but the newest and best was at Bassens, near Chambery, and formed, therefore, a part of the price paid by Italy to Napoleon for his "generous" assistance in the late war. At Milan, the great establishment of the Senavra is soon to be replaced by one more suitable in a different and more healthy situation; and this measure was even projected by the hated Tedeschi just previously to their expulsion. The only modern, and certainly the best, asylum in Central Italy, is at Reggio, in the old duchy of Modena. The building is well arranged, and the patients well cared for in many respects; but as I was positively refused admission to the quarter of the *furiosi*, this being never shown to strangers, I think we may conclude that there are some dark shades to this otherwise fair looking exterior. Perhaps, more interest attaches to the asylum at Aversa, near Naples, than to any other; for here has been placed as director one of Italy's most remarkable men —not to say heroes—Dr. Miraglia. This gentleman has distinguished himself by his study of phrenology among the insane, and by the

zeal with which he has cultivated mental pathology, as well as by the interest he has taken in the improvement of the asylums in his country, and he has received from Victor Emmanuel the gold medal and cross of St. Maurice, the highest scientific honor; while he also enjoys the celebrity of having spent eight years in prison for expressing his opinions too freely against the Bourbon government.

All the insane of South Italy were sent to the three houses at Aversa, where the accommodation was as bad as possible; but some new buildings have just been completed after Dr. Miraglia's plans and are in excellent order.

Even at Rome, there are signs of improvement; and *non possumus* is by no means the motto of the Monsignore who directs the asylum. The most remarkable thing there is the suite of baths which has just been re-modelled, and deserves the highest praise; and the building has been enlarged and improved in many ways. I do not know that in any other part of the continent, the people are making such good use of their liberty to help themselves and raise their establishments to the level of the present day, as they are in the new provinces of the Italian kingdom; witness the following facts:

"The Council of the province of Milan has voted two million *francs* for the erection of an additional hospital for the insane poor of the province.

"The provincial deputation of Como, considering that the province requires an asylum for 300 patients, has ordered the erection of the same.

"The provincial Council of Bologna, in order to provide for the proper treatment of its lunatics, formed a commission of inquiry, composed of five professors, a lawyer, and an architect, who made suitable plans, and reported the urgent necessity of building a new asylum.

"The authorities of Bergamo have set about improving the asylum at Astino, substituted a better diet, and built an additional house to receive those capable of being employed."

There is, however, one feature in which Italy, though at every disadvantage, can give us a lesson; and that is, clinical instruction in lunacy, a matter virtually ignored in England. The *Gazetta di Medicina Mentale* regrets that there are only six Universities in Italy, where there is an "alienistic clinique." But how many has England? At Florence, Professor Bini; at Turin, Bonacossa; at Bologna, Montí; at Naples, Miraglia; at Pavia and at Cagliaria, Lumbroso and Dessi-Caboni—give instruction in this branch, illustrating their lectures by reference to actual cases and practice in the wards. Professor Miraglia, in his inaugural address at the University of Naples (March, 1863,) recounted how, in 1849 and previous years, he had, in his works, advocated the necessity of studying the physiology of the brain in connection with insanity; and how, after being called a materialist and atheist by the priests in the service of the then government, he was forcibly silenced; and he does not seem to have escaped the same

abuse on this occasion; for he mentioned a clerical periodical which raised the same cry, though happily with but little effect.

The Austrians, though half ruined by the necessities of their enormous army, have two new asylums in hand—one at Venice, where they are building a large and good house on the island of S. Clemente for women only; and another at Ofen, in Transylvania. The latter is a very extensive three-storied building, and will be even superior to the magnificent one at Vienna, judging from a photographic plan I was shown at the Ministry of the Interior, while staying in the Austrian capital. At Venice, the work, though urgently needed, goes on very slowly, so conscious are the Austrians of the uncertainty of the duration of their hated occupation.

With respect to the question of restraint,* I believe there is not one asylum on the continent where it is not practised and justified by the medical men; but in the better conducted there is much less of it than in others. In one asylum in Italy, I counted thirty-three women sitting in a long room, all restrained, either by means of a jacket, or by the hands being locked in a "muff;" but this was certainly exceptional.

In one particular, the character of mental disease differs in Italy from that observed in other countries; viz; that drunkenness is a very rare cause of disturbance of the brain-functions. In South Italy, where vice is by no means *less* prevalent than in England, inebriety is almost unknown, and a very uncommon cause of insanity; as one reaches further north, it becomes more frequent. In Lombardy, alcoholism is as potent for mischief as in Middle Europe; and in Sweden, Norway, and Russia the evil assumes serious proportions. It seems, indeed, as though one might map out the surface of Europe in zones according to the degrees of temperance observed by the inhabitants, in the same way as one makes zones for botanical purposes, knowing that certain plants and trees will be met with in certain temperatures.

To these desultory remarks I may add one more; that as regards treatment, the chief means relied on by foreign physicians is the use of baths of greater or less duration, but generally prolonged to a degree quite unknown in England.—*British Medical Journal.*

Insanity in New Zealand.—The following are the manifestations of mental alienation most frequently met with, in the order of the frequency of their occurrence,—idiocy, senile mania and dementia, morbid impulse, such as homicidal and suicidal tendencies, and general paralysis. The proportion of insane to the sane population is apparently by no means so great as amongst civilized nations; but it is not unlikely that many, particularly idiots, are never allowed to visit settlements, and even in their own villages are kept somewhat in the

* Since the above was written, Baron Mundy's paper, "An Oasis in the Desert of German Restraint," has appeared, announcing that Dr. Meyer "has had the courage to defend and practise the non-restraint system in the Hamburg Asylum."

background. Congenital amentia is most frequently met with, in all its varieties, from mere weakness of intellect to the drivelling idiot, and, as elsewhere, is characterized by the small head and retreating brow; and next, senile dements, who are occasionally liable to fits of maniacal passion. A considerable proportion of those natives who reach advanced age settle down into a torpid state, a burden to themselves and to others whilst living; but as soon as death relieves their relatives of the incubus, grief is expressed by the wildest lamentations, and the burial is the occasion for meetings, of which alternate feasting and wailing are the material characteristics. All the forms of mania, monomania and melancholia observable amongst the natives of New Zealand are purely emotional,—a fact which might be anticipated, when their peculiarly excitable temperament is taken into account. An orator at one of their meetings, when wound up to the proper pitch, might be readily taken for a maniac by one not conversant with their usages; and the same person might easily mistake a paroxysm of passion, as evinced by a native on very slight provocation, for the ungovernable rage of the insane. Even in ordinary conversation, the rapid utterance, sparkling eye, and undue gesticulation, are evidences of a nature which, when exaggerated by circumstances, renders him peculiarly susceptible of morbid impulse. A dreadful tragedy, the result of homicidal impulse, was lately reported in the colonial papers—a native having murdered with a spade four others who were sleeping in a hut. He was acquitted on the ground of insanity.

Melancholia, in the Maori, sometimes assumes an extraordinarily deep, and even fatal form. The unhappy victim rolls himself up in his blanket, refuses sustenance, and seems to pine away, simply from a loathing of life. The self-imposed starvation does not appear to be the actual cause of death, so much as a pent-up storm of emotion—what is expressed by a "broken heart" being the nearest approach to his condition which suggests itself. I knew of a case which proved fatal in less than three days, the subject of it previously being in apparently rude health, and possessing a herculean frame. This has also been observed when a native has infringed the "Tapu,"—an unbearable superstitious remorse apparently seizing him, which is only terminated in death. Suicide is not unknown, the result of the same causes as the melancholia, and is often associated with circumstances which would supply incidents for novels of the morbid sensation class.

From having taken particular notice of two well-marked cases of general paralysis, occurring in the native village near the settlement of Wangarui, it seems probable that this disease is not alone developed in civilized society. The various causes of excitement already referred to are much the same as those to which the disease is traced in European practice, and perhaps both this and other forms of insanity are considered rare among savages in general, from the fact that with them statistical information is more difficult, often impossible, to arrive at.

Puerperal insanity, as far as my observation or information goes, is unknown.—*Edinburgh Medical Journal.*

Lunacy in Bavaria.—1. The entire number of lunatics amounts, it seems, to 4,899, that is 10.78 for every 10,000 inhabitants, or 1 for every 942. Of this number 3,537, or 72 per cent., are under private care, (or no care at all in many cases,) and 1,362, or 28 per cent., in public establishments. Compared with other countries, as stated by Wappæus, the numbers stand thus:—Bavaria, 11 per 10,000 inhabitants; Saxony, 26; Hanover, 17; Wurtemburg, 13; France (in 1851,) 13; Belgium, 10; Britain, (1847,) 9; Ireland, (1851,) 15; Denmark, 28; the German Duchies, 25; Sweden, 10; Norway, 31; Iceland, 26; the United States, (1850,) 15. The total of insane in all these countries is put down at 136,415 in a population of 103,454,583, giving an average of 13 insane per 10,000, or 1 in 758 inhabitants. (This statement is, however, far too loose for any sound statistical comparison.) 2. Of the whole number of insane, 2,576, or 52.6 per cent., were males, and 2,323, or 47.4 per cent., were females. There were 11.32 male and 9.93 female lunatics in every 10,000 inhabitants, the males exceeding the females in proportion to the respective sexes of the whole population by 1-7. 3. Above 80 per cent. of the whole number of lunatics were between 20 and 60 years of age, above 10 per cent. were under 20, and above 8 per cent. were above 60. 4. The Catholics among the lunatics amounted to 71 per cent., the Protestants to 26, and the Jews to 2 per cent.; but compared with the religious persuasions of the entire population the Catholics furnished 1 insane for every 916 inhabitants, the Protestants 1 in every 977, and the Jews 1 in every 549. 5. There were 83 per cent. single and 17 per cent. married or widowed. There were thus about five times as many single as married lunatics. As in the general population the single persons are 65 per cent. and the married or widowed 34 per cent., it follows that among the lunatics, as compared with the general population, the number of married or widowed persons is only half as great. 6. Of 4,874 lunatics in which the form of insanity has been specified, this is returned as mania (*tobsucht*) in 6 per cent., melcholia (*schwermuth*) in 19 per cent., delirius monomania (*wahnsinn*) in 18 per cent., and fatuity, imbecility and idiocy (*verrucktheit blodsinn*) in 62 per cent. 7. It is stated that in 78 per cent. the insanity was not hereditary, and that in 14 per cent. it was directly and in 8 per cent. indirectly hereditary. In 552 of the 4,899 lunatics no indication under this head was afforded.—*Med. Times and Gazette.*

Lunatic Asylums in Ireland.—The thirteenth report of the District, Criminal and Private Lunatic Asylums in Ireland has recently been presented to the Lord Lieutenant. It appears that the returns referred to by the inspectors, though diligently collected by the constabulary, in addition to the statistics furnished by the several estab-

lishments for the treatment of the insane, do not furnish full evidence of the extent of lunacy and mental imbecility in the population, a number of persons who are so afflicted being maintained by their own families. The following facts, however, are of interest: On the 31st of December last the insane, subject to the supervision and control of the inspectors, amounted altogether to 8,272, of whom 4,086 were males, and 4,186 females. They were classified as follows: Lunatics, 5,590; idiotic and imbecile, 1,377; and epileptic, 1,365. In addition to the above, who are distributed in asylums, gaols, and poor-houses, the police have furnished lists numbering no fewer than 8,384 persons, who are mentally affected in their several districts, making altogether 13,256. It is remarkable that during the last ten years no perceptible diminution has taken place in the number of the insane, notwithstanding the decrease of population in that period. This is accounted for by the fact that not only are those who are physically or mentally infirm left at home by their friends when emigrating, but are often sent back to their native country from America.

The want of accommodation in the Richmond District Asylum, which comprises the counties of Dublin, Louth and Wicklow, which has been complained of in previous reports, is again made a subject of observation. The division of the district is strongly advocated as the only remedy for the increasing evil of having an undue number of inmates in the asylum, without adequate means of giving them the medical treatment which they require.

There are seventeen asylums in operation in Ireland, and six others in course of erection, which will accommodate 1,800 more. Having regard to the necessity for increased accommodation, so that all who are mentally afflicted may be brought under supervision, and also considering the diminished population, the inspectors have modified their views respecting the convertibility of work-houses into asylums, and they suggest the propriety of determining whether two or three, in suitable localities, might not be selected for the purpose. The report contains remarks, generally favorable, upon the individual condition and management of each institution during the past year.

Of the 4,672 inmates of asylums, no less than three-fourths are incurable. A prevalent error with respect to such cases is noticed in the report—namely, that they might be removed from regular asylums to other establishments of less organized and experienced details. The inspectors justly observe that no class requires more careful attention. It is creditable to the management of Irish asylums that, after a series of years, the mortality has been invariably less than in similar institutions in other countries.

In analyzing the character and causes of mental diseases, and the causes which operate upon it, the inspectors give some interesting and singular facts. The proportion of insane between the sexes is for all practical purposes equal. Physical causes operate more upon men; moral and constitutional upon women. Hereditary predisposition influences both sexes alike. To illustrate the effect of moral and sensa-

tional affections in producing insanity, they state that, taking widowhood, for example, as a classification, there are 192 women laboring under aberration of mind against 71 men; and for loss of children, 14 mothers and 6 fathers. Monomania from religious causes is of irregular occurrence. Religious excitement, we are reminded, does not necessarily produce religious delusions—quite the reverse. A startling fact for our clerical readers is given on the authority of the inspectors—namely, that the largest numerical proportion of the insane, by fully six to one, is to be found in the clerical profession; yet in scarcely a single instance does the delusion turn on religious subjects. The periods of life during which mental disease prevails most generally is between twenty and thirty-five; and during the same period the recuperative powers of the mind are stronger, and they recede before advancing years. Another remarkable fact is, that in the asylums the unmarried are three times as numerous as the married in Ireland, while in England the reverse is the case. The average cost of maintenance is £20 19s. 9d. per head.—*Daily Express.*

On Bromide of Potassium.—On the first introduction of Bromide of Potassium, it was thought to be very analogous in its action to the Iodide, although somewhat less powerful; but little, in fact, was known about its powers. About nine years since I made some extensive trials of this medicine, chiefly in hospital practice, and found that, in certain cases of eruptions of the skin, as in syphilitic psoriasis, it acted as a curative agent, or, at least, patients when under its influence lost the affections under which they had been suffering. I was induced to give the bromide in these cases as the patients were intolerant of the action of the iodide. I discovered, likewise, that Bromide of Potassium, when pure, did not give rise to any of the symptoms to which the name of Iodism has been applied. I did, indeed, occasionally notice these symptoms, but this led me more carefully to examine the salts which had been dispensed; and it was ascertained that, with one or two exceptions, the bromide, as sold in London, contained notable quantities of the Iodide of Potassium. After this, I took precautions to have the bromide pure in all my observations upon its action, and the results I arrived at may be thus summed up:

1. It produces none of the irritation of the mucous membranes of the nose and fauces—no coryza. 2. Some patients experience a peculiar sensation of dryness of the throat and neighboring parts. 3. When given in large medicinal doses, sleepiness or drowsiness, and dull headache were occasionally noticed. 4. When administered in very large amounts, some loss of power was noticed in the lower extremities, which passed off when the medicine was discontinued. 5. The therapeutic action was decidedly what may be termed alterative—that is, it relieved certain forms of chronic disease, as syphilitic skin affections. 6. No marked action was observed upon the skin or kidneys.

Soon after these observations had been made, Sir Charles Locock stated that he had found Bromide of Potassium useful in hysterical

epilepsy, and in other nervous affections connected with uterine disturbance, and I was from this led to make further trials of the remedy, and have found that—

7. Bromide of Potassium exerts a most powerful influence on the generative organs, lowering their functions in a remarkable degree. 8. It is a remedy possessing most valuable powers in diseases dependent on, and accompanied by excitement or over action of the generative organs; and hence it may be given with advantage in nymphomania, priapism, certain forms of menorrhagia, especially that occurring at the climateric period; as likewise in nervous convulsive diseases dependent on uterine irritation; and lastly, in some ovarian tumors. 9. It appears to produce an anæsthetic condition of the larynx and pharynx; and hence has been usefully employed in examinations and operations of these parts.

Bromide of Ammonium has been lately proposed more especially for the production of the last named effects, but I am not aware that it possesses any powers superior to those of the salt of potassium. The Bromide of Potassium may be given in doses of from five grains to ten or even fifteen grains to the adult.

It is curious to observe and compare the physiological and therapeutic powers of three salts so analogous to each other in a chemical point of view—namely, the Chloride, Bromide and Iodide of Potassium, the first producing but little action unless given in large quantities, probably from its being a normal constituent of the body; the second, the bromide, abnormal to the economy, or existing only in infinitesimal amounts, acting especially on the nervous system; the third, the iodide, also abnormal to the body, having its influence more especially directed to the mucous membranes and secreting organs. The investigation of such actions in relation to the composition of the substances administered may probably one day afford some clue to the comprehension of the effects of remedies.—*Dr. Jarrod, Medical Times and Gazette.*

On the Action of the Bromide of Potassium.—Reading some remarks in a late number of the *Lancet* on the action of bromide of potassium, and having tried the drug extensively for the last five months, it has occurred to me that a few observations on its action may not be unacceptable to the readers of the *Medical Times and Gazette.*

Through the kindness of Dr. Wing, the Superintendent of the Northampton General Lunatic Asylum, I have been enabled freely to try it in as many as thirty-seven cases. These were all epilepties, and I append a table showing in one column the number of fits registered during the last five months of last year, when they were taking no medicine, and in the other the number registered during the first five months of this year, when each case was taking on an average ten grains of the salt twice daily.

I may premise that the greatest care was taken that, for the whole of the ten months during which these thirty-seven patients were under

observation, their lives, with the exception of taking the bromide during the last five, should be spent under as near as possible the same circumstances.

Males' Names.	Fits during last five months of 1863.	Fits during first five months of 1864.	Females' Names.	Fits during last five months of 1863.	Fits during first five months of 1864.
W. M.,	148	107	E. H.,	23	19
J. R.,	69	45	E. J.,	25	37
J. B.,	32	21	M. K.,	60	27
J. J.,	246	91	E. H.,	29	9
W. L.,	55	37	E. W.,	50	56
S. L. B.,	19	24	C. S.,	17	23
T. H.,	40	29	S. A.,	82	85
C. B.,	52	46	M. L.,	26	5
R. H.,	112	102	A. S.,	41	22
G. M.,	47	64	E. G.,	46	53
W. W.,	36	37	H. W.,	1	
J. L. M.,	33	26	M. L.,	57	8
T. G.,	13	4	A. C.,	11	29
R. G.,	30	9	M. C.,	1	
J. K.,	25	16	S. A. P.,	577	556
E. E.,	8	14	S. A.,	1	
W. O.,	10	10	S. S.,	73	37
W. M.,	29	14	E. G.,	73	11
J. J.,	8	10			
	1012	706		1127	970

From this table it will be seen that the number of fits amongst the males decreased by 306, and amongst the females by 157; that all the patients but 5 males and 6 females were benefited more or less; that the improvement was, however, more apparent amongst the males than the females; but that no patient of either sex was entirely cured. It is right to remark that all these patients are more or less insane, and many of them extremely violent at times.

Mr. Henry Behrend, the writer in the *Lancet*, confines his remarks to the powerful effect this drug has on "insomnia and restlessness, accompanied and dependent on nervous excitement and irritability," and this statement my own observations fully corroborate; but I have not the same confidence in recommending, as he does, the unfettered use of half-drachm doses; for in several of the cases recorded above it was found necessary to reduce even the average—ten grains twice daily; and in the majority the first use of the drug was accompanied by sickness and lassitude.

Those patients on whom the drug seemed to take the most effect in this way were seven in number; after using it for a few days the action of their hearts became slow and fluttering, the eye lost its lustre, the skin was cold and clammy; they had a wearied, anxious look, and complained of headache, and sickness, and shivering, and of unusual weakness at the knees, and invariably sat crouched up by the fireside all day, evidently devoid of all energy and resolution. Curi-

ously enough, in all the cases thus powerfully affected the fits were increased instead of diminished.

The drug excited hypercatharsis in two patients, which was repeated again and again each time it was renewed; the fits in both these cases were diminished; in the case of the female, from 41 to 22.

One patient, S. A., was apparently, five months ago, one of the most healthy persons in the home—fat, strong, and rosy; but soon after taking the bromide, the peculiar symptoms described above developed themselves, and the medicine was immediately omitted; but, although she rallied a little, her system never thoroughly recovered itself; tubercles became developed in the lungs, and she died towards the end of April. Truth compels me to confess that I have my doubts whether the bromide of potassium had not something to do with this poor girl's death—at all events, this occurrence has made me very watchful when using it.

On the other hand, considerable benefit has arisen from its use in some cases; it undoubtedly exercises a most powerful influence on the nervous system, and often soothes the irritability of epilepsy, even if it does not diminish the frequency of the fits, when no other medicine will take any effect, and in this way will be found a most valuable adjunct to the repertory of an asylum dispensary. I cannot think that it has much effect, however, on the sexual system; for in some cases where it was used more especially with that view, there was no apparent result, but of its powers in inducing sleep in cases dependent on nervous irritability there can be no doubt, and often from ten to twenty grains twice daily will suffice to effect this.—*Dr. Williams—Medical Times and Gazette.*

Formiate of Ammonia and Formic Acid in Diseases of the Nervous System.—If chemical homologies had corresponding therapeutical relations, we should not expect to find great energy in formiate of ammonia. Of course, identity of composition does not in any way imply identity of properties either of form or of chemical relations, but identity of type is pretty certain evidence that the difference of chemical properties is simply one of degree and not of kind. Formiate of ammonia is the homologue of acetate of ammonia, formic acid being the acid from methyl alcohol, and acetic acid from common alcohol; and the difference in composition in these two acids, as betwixt each, in the series, is two equivalents of carbon and two of hydrogen. This gradual increment of carbon and hydrogen in this series is attended by a corresponding increment of properties, greater solidity, and a higher boiling point (19 centigrade.) Now, it has been suggested that, as there is, with some discrepancies, however, a gradual ascent of physical and chemical properties, so there may be a corresponding one of therapeutical power. Such schemes of thought may be useful to suggest remedies, but not to decide on them. The following observations, gathered from the practice of Dr.

Ramskill at the Hospital for Epilepsy and Paralysis, show that such reasoning cannot be trusted in the instance of formiate of ammonia. Although lower in the scale, chemically it seems to have far more energetic properties than we are in the habit of ascribing to acetate of ammonia, our common saline. Probably the action of formic acid on the skin is strictly analogous to that of acetic acid. Formic acid is the acid found in ants, and also in the juice of the common nettle.

Formiate of ammonia is used chiefly for internal administration; it is especially applicable to cases of chronic paralytic disease, accompanied by general torpor.

It is contra-indicated wherever there is reason to suppose activity in or about the seat of the original lesion in the nervous centres: irritable stomach also, whether the result of cerebral mischief or not, excludes its use. On the contrary, cases of reflex paralysis are most benefited; next, those cases where, from disuse, the muscles and nerves have become unable to convey commands of the will, or to execute movements. It is equally useful in paralysis of sensation as of motion. The dose is five grains. Given in larger doses than five grains, it produces vomiting. When it agrees, patients experience an epigastic glow, and it appears to act as a general stimulant.

Applied externally, we find in formic acid, diluted with an equal quantity of water (or less,) the best local application for paralyzed limbs. It restores circulation, and frequently produces the sensation of being stung with nettles, and occasions an erythematous eruption. As we have remarked, this acid is contained in the juice of the common stinging-nettle, and in ants. Just as burnt sponge had been used long before it was known to contain iodine, so ants have been used empirically. We do not attach much importance to the authority, but we may mention that De Leuw, the notorious quack oculist, almost always prescribed, in anæmic cases, an ointment, composed of ants of the larger kind mixed with lard, to be rubbed over the branches of the fifth and seventh nerves in the neighborhood of the eye. There is a considerable quantity of formic acid in the bodies of these insects.

In some forms of epilepsy the internal administration both of the acid and its salt of ammonia has done great good; in others, apparently harm.—*Medical Times and Gazette.*

On the use of Tea as a Remedy in Coma.—Mrs. A. B——, aged 30, has been subject for some years to what she calls "spasms of the heart," for which she some short time ago visited Europe and was treated at different times by Drs. Simpson of Edinburgh, Stokes of Dublin, Trousseau of Paris, and other eminent men in London, Vienna, and Glasgow, but without any effect. Latterly she had been using Battley's sedative solution with more benefit, but as she had no attack for some months she had discontinued the use of this remedy for about three months. A short time since she was threatened with one of her usual paroxysms, and, dreading it very much, she had recourse

at once to Battley's sedative solution in two-drachm doses; these doses she continued at intervals till she had taken two ounces and a half in about eight hours. Shortly after the last dose she was seized with a slight convulsion, and almost immediately became comatose. I saw her at two o'clock A. M., two hours after the convulsion, and found her in a state of profound coma; pupils contracted; respirations two in the minute, and performed with a great effort; pulse very rapid, small, and extremely irregular; face deathly pale, ghastly, cold, and covered with a clammy sweat; extremities also cold. It was evident that she was under the narcotic influence of the enormous dose of opium which she had swallowed and that death was imminent. As three hours had elapsed since she had taken the last dose, I conceived it useless to use the stomach-pump; moreover, in the then state of her respiration, I believe the use of that instrument would have been at the risk of her life. As she could not swallow, an emetic was equally out of the question. I therefore applied extensive sinapisms to the legs and chest, used the cold douche, and applied ice to the head. Having by this time been joined by my friend, Dr. Jackson, I suggested the propriety, (while waiting for a galvanic battery,) of administering an injection of a pint of the strongest possible infusion of green tea per anum, which was done at a quarter past three A. M. In half an hour there was a visible improvement in the breathing, which was now six in the minute, accompanied by a slight return of color to the face, and a corresponding improvement in the temperature of the cheeks. The coma continued much the same, but, encouraged by the improvement in the other symptoms, the injection of tea, to which some brandy was added, was repeated at four o'clock. During the next hour we had the satisfaction of observing a gradual return of the respiration to its normal condition, with an improved state of the pupils, and a corresponding change in the general temperature of the body. She continued to progress favorably, and between five and six o'clock (or about two hours and a half after the first injection,) though she could see nothing, she recognized those about her by their voices, and soon after we were enabled to pronounce her out of danger.

This case I consider of great interest, taken in connection with the use of "green tea" as an expergefacient or nervous stimulant. The improvement in the general symptoms followed so rapidly upon the treatment, notwithstanding the enormous narcotic dose taken, that I think I am justified in attributing this lady's recovery to the adoption of the tea. I am aware that neither this remedy nor its application is new, as I believe a case very similar to the above was published in the *Lancet* some two years since, which was successfully treated with "theine;" but while every practitioner has not the active principle by him, the tea itself is accessible to all. I may state that this is the fourth time I have used green tea in cases of coma, and with the best results. My first case occurred about six years ago.

An infant, aged eighteen months, had been forced by its drunken father to swallow three parts of a wineglassful of the vilest whisky

usually sold in the low taverns which infest this city. She shortly afterwards became comatose, in which state I found her in an hour and a half after taking the poison. Her face was pinched and drawn; her extremities very cold; her pupils dilated, and death apparently at hand. With very great difficulty I succeeded in getting into the stomach one teaspoonful of a strong infusion of tea. This I ordered to be repeated every twenty minutes. On my return I was informed by the mother that after the sixth dose the child had perfectly recovered, and was, as she expressed herself, "as brisk as a bee." My second case was a peculiar and instructive one, as it shows what a powerful agent the remedy under consideration really is.

Mr. S——, aged 40, was suddenly seized with violent convulsions which left him profoundly comatose. In my absence he was seen by one of my medical friends, who considered him dying. On my return home, some three hours afterwards, I visited my patient, and finding him still perfectly insensible, notwithstanding the adoption of the ordinary remedies, I ordered a strong infusion of the tea to be prepared, and directed that he should get one tablespoonful every twenty minutes till my return. This was effected with the greatest difficulty. I saw him again in two hours, when he had taken six doses, and I found him sufficiently recovered to be able to recognize me on my entrance. Finding him so far improved, and not yet fully acquainted with the power of the remedy, I committed a great mistake by making a rule of three case of the matter, reasoning, that if six tablespoonfuls had done so much in two hours, what would twelve do in four? I therefore ordered the above mentioned dose to be continued as before. I returned in about *one* hour and a half, after my patient had taken four additional doses. On entering the room I found my man (who a few hours before had been pronounced to be dying from coma,) a raving maniac. He had destroyed all the delf in the chamber, maltreated the nurse, and struck his wife, of whom he was very fond, and whom hitherto he had always treated kindly. These symptoms of nervous excitement, brought on by an overdose of the expergefacient, soon passed off, and next day he was himself again.

My third case was that of a young lady, aged 26. One morning, not coming down to breakfast, she was sought for, and found in her bed in a state of profound coma. She was treated for two days by the late Dr. Morin and myself by cupping, croton-oil, sinapisms, &c., but with no change in the symptoms. At this time, although the case was not a promising one, I suggested the tea remedy, which was followed in about three hours by a complete recovery of consciousness.

We are, I believe, indebted chiefly to the late Dr. Graves for the introduction of tea as a nervous stimulant, who recommends its use in the coma of fever, and it is from him I have borrowed its application in the above cases. My experience in the remedy is, as may be seen, not very great; but, so far as it goes, it has been highly satisfactory to myself, and will, I believe, prove equally so to all who will give it a fair trial.—*Dr. Jas. A. Sewall, Lancet.*

Physiological Action of Ecbolina.—The experiments were made by comparison with the powdered drug. Unlike most authors, who believe that ergot has no obvious action on the male, I have come to the conclusion that it has as powerful an influence upon the spinal column of the male as it has upon the female. I find a half a grain of ecbolina to possess the same therapeutic action as thirty grains of ergot. From either the alkaloid or the powdered ergot in the doses mentioned, the following effects have been experienced upon myself:

The functions of the brain were excited to a species of intoxication, in which participated the muscular system, causing involuntary contractions of the muscles, soon followed by nausea, loss of appetite, a sense of weight and shooting pains through the head, stiffness and soreness of the muscles of the neck and extremities, a creeping sensation along the course of the spine; finally, a state of general relaxation and debility, soreness of the muscles, particularly those of the extremities, and a gnawing sensation in the stomach, with hunger. From the beginning to the end of the ergotic influence, which lasted about three hours, the pulse was not materially affected until the stage of debility supervened, when the pulse fell about four beats per minute. On doubling the dose, the only difference observed was, that the state of excitement was of shorter duration, but was followed by a greater amount of debility, greater weakness, with trembling of the extremities and pain through the chest.

Half a grain of chloride of ecbolina was given to a strong muscular man, weighing 180 pounds, and in perfect health. He complained of shooting pains in the head, nausea, frequent calls at micturation, pain and tightness across the chest, followed by a reduction of the pulse, depression of the mind, a dull pain with a sense of pressure above the orbits, and general debility.

Experiments instituted with Ergotina in a physiological point of view were less complete, owing to the loss previously mentioned. From the effect produced upon myself, I believe it to be less active than its congener, and although capable of causing some cerebral excitement, and a reduction of the pulse, I did not observe the same specific action upon the spinal column and muscular system.

I placed into the hands of a physician some months ago a solution of chloride of ecbolina, to test its medicinal qualities in uterine hemorrhages and parturitions, but have not heard from him since.* —*Am. Jour. of Pharmacy.*

*Since this article was put into type the following has been received from the author:

"I have seen the physician into whose hands I placed the chloride of ecbolina. He tells me that he used it in several cases of uterine hemorrhage, with satisfactory results, but says that, from the symptoms produced in the doses I had directed him to give, he was compelled to lay it aside, from the energetic and poisonous action it evinced, causing great nausea with distressing vomiting and intense headache. He thinks the ecbolina to be a powerful agent."—*Ed. Am. Journal of Pharmacy.*

M. Claude Bernard on the Properties of Opium.—At the last meeting of the Academy of Sciences, M. Claude Bernard read the first part of the memoir upon the physiological properties of opium and its alkaloids. He has experimented upon morphine, narceine, codeine, narcotine, papaverine, and thebaine, and he states that the first three only are soporific, inducing sleep each after its own manner. The three latter are toxical. From this it results that opium is a mixture of a great number of substances, the properties of which, as regards the economy, are not alike. It is more than probable that these six substances are not the only ones contained in opium. The experiments were performed by the hypodermic injection of a centigramme of the hydrochlorate of these alkaloids, various animals, as dogs, cats, rats, guinea-pigs, etc., being employed. Morphine has been found to induce deeper sleep than codeine, narceine occupying the mean position between them. This last substance, as yet, has not been administered to man, but MM. Debout and Béhier have been engaged in an investigation of its action on the human economy, which will soon be published. All the derivates of opium are toxical, but in different degrees. Thus, thebaine is the most highly so, and then comes codeine; whence it follows, contrary to the general opinion, that the gummy extract is more dangerous than morphine. Practitioners, too, are wrong in prescribing codeine in a larger dose than morphine, for two or three centigrammes of codeine injected into the veins of a dog rapidly killed it. With the exception of thebaine, all the alkaloids of opium induce convulsions; but animals poisoned with thebaine die in a condition of relaxation. Thus we may conclude that the same plant may contain very dissimilar medicinal substances.—*Med. Times and Gazette.*

On the Internal Employment of Essence of Turpentine in the Headaches of Nervous Women.—M. Teissier thus describes the kind of cases of nervous headache in which he has found the essence of turpentine to be beneficial. The affection, he says, is a common, but often very severe one, and should not be confounded with ordinary neuralgia, either periodic or irregular, of the face or cranum, or even with hemicrania. This cephalæa is characterized by a much more fixed and continuous pain in the head, and may last not only several weeks but months, and entire years, without presenting more than rare and slight intermissions. The pain is sometimes dull, sometimes shooting, and sometimes pulsative, occupying only a single point of the head or the whole of the cranium, being accompanied by nausea or even vomiting, and complicated besides with much more serious symptoms, such as vertigo and tendency to syncope, inability to think or to work, despondency, weariness of life, and sometimes numbness in the limbs. It is especially observed in nervous women, with exalted sensibility, of a delicate constitution, somewhat anæmic, and especially hysterical. It often coëxists with dysmenorrhœa, amenorrhœa, and also with a tendency to excessive menstruation,

although it is sometimes observed in persons of good constitution whose menses are regular. M. Teissier observes that many remedies already exist which are efficacious in this complaint, such as valerian, asafœtida, the ethers, cyanide of potassium, aconite, &c.; and more particularly those which improve the blood, as chalybeate medicines, and different mineral waters. But these means sometimes fail, and then the essence of turpentine may be employed with advantage; although M. Teissier does not assert that it is infallible in its operation. It has been employed in the same kind of cases by Dr. Graves and by Trousseau; but M. Teissier does not think it necessary to prescribe it in such large doses as those physicians have done. He recommends its use in capsules, given at meal-times, each capsule containing eight drops of the essence.—*Gazette Médicale de Lyon*, and *Brit. and For. Med.-Chir. Rev.*

Lecture on the Physiology of the Cerebellum.—Directing attention to two experiments on birds, in which the usual appearances of irregular and disordered motions were manifested on injuring their cerebella, Dr. Lusanna commences his lecture by citing the opinion of Flourens, that coördination of the voluntary movements is the function of this organ. Clinical observation on man has not favored this view: paralysis or powerlessness of voluntary movement, rather than disorder, characterizes lesions of the cerebellum. In a turkey, which Lusanna had succeeded in preserving some months after removal of the cerebellum, this powerless condition of the motor faculties was very manifest. At first, in this turkey, for several days disordered and irregular movements were present, but these gradually gave place to paralysis. Patients complain of being unable to feel the ground below their feet, but their movements are not really paralyzed. Lusanna believes that the cause of these symptoms is *the loss of the muscular sense*, which coördinates voluntary movements. This sense differs from cutaneous sensibility in its anatomy, by its central organs, by its peripheral apparatus, and by its nerves. In its absence, an animal no longer feels the solidity of the earth on which it stands; it does not feel the resistance of the medium in which it flies or swims; it no longer feels the impenetrability of objects which oppose its progress, nor the weight of any body it attempts to seize or carry.

In man, diseases of the cerebellum usually give rise to hemiplegia of the opposite side of the body, most marked in the inferior extremity. In animals, the peculiar rotatory movements are disordered efforts at movement, but are nevertheless always voluntarily executed.(!) In birds, the disordered movements are bilateral or general; in mammals, they are unilateral. In the former, the cerebellum is one single mass superimposed on the medulla or oblongata, and there is in it no decussation of its crura; in the latter, there are two lateral and a central lobe, and the posterior crura decussate. There is a correspondence in all classes of animals between the perfection of muscular sense and the development of the cerebellum. Lusanna is further of

opinion that the cerebellum is the organ of the erotic sense, and that the middle lobe is the special seat of this function.

In reply to some critical remarks of Dr. Brown-Séquard on the above paper, Lusanna adduces further proof of the correctness of his theory that the cerebellum is the organ of the muscular sense. He affirms that in 128 recorded cases of affection of the cerebellum, there is not one in which the symptoms were not those which characterize a lesion of the muscular sense, expressed, not by a state of irritation, but by want of action. If one such case, well observed, in which a *considerable* lesion of the cerebellum is not accompanied by lesion of the voluntary movements in some part of the body, can be adduced, Lusanna is willing to give up his theory. In the case of Schroeder van der Kolk, cited by Brown-Séquard, in which, after a wound of the cerebellum, the patient could walk or mount a ladder, there is no proof of any considerable destruction of the organ, and the symptoms would rather be those of irritation than of absence. A wound of the brain does not annihilate intelligence, yet no one asserts that the brain is not the organ of the intellect. If an animal, which has survived the removal of the cerebellum, does not exhibit signs of the loss of the muscular sense, the author is willing to abandon his theory. Experiments on fishes confirm what the author has observed in warmblooded vertebrata. When vomiting, irregularity of the circulation, syncope, and convulsions occur, they indicate injury of the medulla oblongata, and are usually of fatal import. On the other hand, lesions of motility are by all experimenters regarded as characteristic of injury of the cerebellum.—*Journal de Physiologie.*—*Edinburgh Medical Journal.*

Syphilitic Disease of the Cranium and Dura Mater. Meningeal Apoplexy.—The subject of the present case was a man, aged 35, an itinerant lecturer. He had for many years before his death suffered much from syphilis, and, in other respects, had been of very dissolute habits. Some pieces of bone had come away from the nose. For some time, however, before his fatal illness, his health had been tolerably good. In November, 1861, he was attacked with convulsions, chiefly affecting the left side, which were followed by a state of unconsciousness, which lasted for three days. Within the subsequent three months he had three similar convulsive attacks without any loss of consciousness, but accompanied with slight impairment of the mental powers, and much irritability of temper. When he was taken into St. George's Hospital, on the 6th of February, 1862, he was in the fifth convulsive seizure. He was hot, and covered with perspiration. He had violent convulsive twitchings of most of the voluntary muscles of the left side, especially those of the face. The muscles of the right side were similarly affected, but to a much less degree. The pulse was rapid, and rather hard. He was perfectly conscious. Though he could not speak so as to be understood, he wrote upon a card, begging for medicine to stop the convulsion. He had no loss

of sensation. A turpentine enema was given, and afterwards some morphia. A blister was placed on the back of the neck. In about two hours he became much quieter, a slight amount of twitching only remaining. He slept well. Next day the movements were scarcely observed, except in the evening. He had no facial paralysis or squinting. The left pupil was slightly larger than the right. The left limbs were rather weaker than the right, and were found to be slightly wanting in sensibility. On the 10th the spasmodic affection increased, as also did a sense of constriction about the throat when he attempted to swallow. He described himself while thus affected as "torn to pieces with cramp." When asleep he was perfectly tranquil. He took a mixture of valerian and ether. The convulsions were seldom quite absent while he was awake, and, at times, especially towards night, were very severe. They were increased when he was watched or spoken to. He became a little deaf. His pulse became feeble and his tongue parched. On the 13th, a swelling was noticed near the left elbow; this was soon afterwards punctured, and a quantity of matter let out. Some diffuse inflammation spread from the wound, and the sore made by the blister began to slough. The movements (Feb. 17) now ceased. He became completely deaf, still retaining complete consciousness. In spite of stimulants, he continued to sink and quietly expired on the 23d. After the first attack, three months before his admission, he never had any loss of consciousness.

When the body was examined it was much emaciated. A large abscess in the left arm was discharging through an incision. There were scars on the glans penis, such as would result from chancres.

The skullcap was very solid, and when partially dry appeared more than usually vascular. On the inner surface of the left parietal bone was a small circumscribed deposit of new bone, probably the result of a node of a date long antecedent to the fatal termination. Inside the right parietal bone was a similar deposit of greater extent and more recent origin. Both these localities were surrounded by diffused roughness, probably due to new growth of bone.

Just beneath the node, on the right side, was a circular deposit of lymph, about as large as a shilling, which was, on the outer surface of the dura mater, surrounded by a furrow, around which were some flakes of false membrane easily detached.

When the dura mater was cut open, a large thick mass of incompressible yellow matter was seen on its inner surface, just beneath the patch of lymph on the outside of the membrane. These were, in fact, continuous through the dura mater. The total thickness amounted to half an inch. The deposit was yellow and opaque. Under the microscope it had an indistinctly fibrous character. A few fibrillating cells and many fine oil-globules were intermixed.

The convolutions beneath this mass were compressed so as to have a slightly concave surface, which was adherent to the mass of lymph.

Excepting just where this compression had taken place, the arachnoid cavity over the convexity of the right hemisphere was occupied

by a semi-transparent brownish membrane. In places this had a rusty or yellowish shade. It had the appearance of a laminar coagulum, which had been effused three or four months before. It was loosely attached to the walls of the arachnoid cavity. It was inseparable from the rounded prominence already described.

There were a few old adhesions between the hemispheres. The ventricles, and all the other parts of the brain, were natural. There was no excess of vascularity.

This case needs little comment. The syphilitic disease of the skull had no doubt been gradually followed by an exudation of lymph beneath, which penetrated the dura mater, and occasioned compression of the subjacent convolutions. The first seizure, which alone was followed by loss of consciousness, was probably due to a sudden effusion of blood into the right arachnoid cavity. The irritation occasioned by the organized membrane which resulted, as well as by the mass of lymph already existing, was no doubt the cause of the convulsions which occasioned the exhaustion and death of the patient. This case illustrates the fact pointed out by Dr. Bright, that convulsive attacks, during which the patient retains his memory or power of observation, are generally produced by some cause of irritation, not in the substance, but upon the surface of the brain. A patient who died after a succession of epileptic fits in the hospital, some months before, afforded another example of the same law. During the seizures he appeared unconscious, but in the intervals he was able to repeat conversations which he had then overheard. A film of recent lymph, probably of syphilitic origin, was found upon one of the hemispheres. The brain in all other particulars was natural.—*Trans. London Pathological Society, Vol.* 13.

Red Softening of the Brain from Obstruction of the Minute Arteries by Fibrine, which had been carried from one of the Valves of the Heart during an attack of Acute Rheumatism.—The subject of the present case was a single woman, aged 25. She had a pasty and anæmic appearance. Excepting that her breath had been observed as offensive, she retained her usual health until the evening of February 14th, when she had several slight rigors, felt unwell, and went early to bed. During the night she became delirious. In the morning the left knee and one of the fingers were observed to be swollen. As the delirium continued, she was, on the evening of the 15th, sent to the hospital. When spoken to, she was recalled to sensibility. The delirium was of the low muttering type. The head, and body generally, were hot. She complained of continual pain in the head and in the back. The pulse was very rapid. The heart acted with energy. A systolic murmur was heard at the base, and less distinctly at the apex. There was now no appearance of swelling in any of the joints. An aperient was ordered, a saline draught at intervals, and cold lotion to the head. She passed a restless night, with the same kind of delirium. The evacuations were

passed into the bed. Some urine which was secured was found to be highly albuminous. The murmur varied much from time to time. It was now (Feb. 16th) louder at the apex than at the base, and was sometimes scarcely audible, at other times very loud. There was a slight squint affecting the right eye. The tongue was furred and red at the edges. On the night of the 17th her nose bled. On the 18th she was more depressed; she lay quietly in bed, groaning occasionally, as if in pain, and now and then drew a deep sigh. There was a tendency to drowsiness. When roused she answered correctly. The skin was still unnaturally hot; the pulse 130, still with some power. She still took the saline draught, had calomel at intervals, and a blister on the neck. Next day the delirium was of a more active character; she sang and talked during the night, and declared she had no pain. The nose had bled again considerably, and there was a decided squint with both eyes. The pulse was 140; it was more feeble, seeming to fall away under the finger. On the 20th the pulse could scarcely be counted; there were sordes on the teeth, and a film upon the eyes. She took no notice of any one.

The pupils were not affected by light. Afterwards she passed into a state of complete unconsciousness, and quietly expired on the 21st.

When the body was examined, twelve hours after death, some excess of fluid was seen under the arachnoid membrane of the brain, which was turgid with blood in some places. When the hemispheres were sliced, a mass of circumscribed red softening was seen in the right. This was about an inch in lateral measurement, and two inches from before backwards. It had a broad base, which corresponded to the longitudinal fissure. The change extended in the vertical direction from within half an inch of the top of the hemisphere to the membrane lining the roof of the lateral ventricle. The softened part was red, as if dotted with innumerable minute ecchymoses. The color was not bright, but tended to a brownish tint in parts. The separation between the affected and the healthy parts was abrupt. In the neighborhood of the large mass were one or two others of similar character, but much smaller extent. The convolutions which were nearest to the softening had a trifling quantity of recent lymph upon them.

Under the microscope, the altered parts displayed numerous nerve-tubes much broken up, and mixed with blood-cells; but there was no abnormal deposition in the tissue. The minute arteries forming, and connected with the pia mater, were obstructed by coarse granular material, which was irregularly packed within their cavities. The corresponding vessels in other parts of the brain were natural.

The large arteries were dissected out. In the vessels connected with the vertebral, as well as with the carotid arteries, alike on both sides of the brain, were many small shreds of fibrine. These were pretty evenly distributed. They were too small to cause much obstruction in the vessels.

The heart was covered with a few patches of old lymph, the result

of former pericarditis. The orifice of the mitral valve was fringed with beads of recent lymph. There was also a long loose mass of fibrine, about an inch in length, which was attached to one of the depressions of the valve. It was soft, easily detached, and floated freely in the ventricle. It was opaque, of a dull-whitish color, inelastic, and had apparently been formed long anterior to death.

There was a fibrinous block, surrounded by vascularity, at either end of the left kidney. There was no obstruction in the larger arteries leading to these parts; but the microscopic arteries were all filled, more or less completely, with coarse granular matter. In the altered portions, beside the vessels thus obstructed, there were seen the ordinary elements of the kidney, and some coarse granular matter, some of which was collected into nodules.

The liver contained, at its anterior edge, a small mass of deposit resembling those in the kidney.

This case appears to have been one of acute rheumatism, with early affection of the heart. The cerebral symptoms no doubt were due to the obstruction of the vessels of part of one hemisphere by the accidental course of particles of fibrine swept into the circulation from the mitral valve. The red softening which resulted has been observed in other cases of a similar nature.

The symptoms referred to the brain were much the same as would have resulted from an inflammatory attack involving the same part of the organ.

In cases like the present, where fibrinous blocks are produced in organs by the stopping up of the vessels by fibrine, the obstruction appears to commence in the capillaries, or minutest arteries. As the current of particles continues to flow the obstruction extends up the larger branches. The characteristic appearance is due to the distention of small arteries by fibrine. The stopping up of a large vessel by a single plug is inadequate to produce one of these blocks in the part from which the supply of blood has been cut off.—*Trans. London Pathological Society, Vol.* 13.

Clinical Remarks on Cases of Defects of Sight in Diseases of the Nervous System.—It is of as much importance to the physician to distinguish the various kinds of amaurosis occurring in brain disease for their value as symptoms, as it is to the opthalmologist for treatment as diseases of the eye. Dr. Hughlings Jackson recently made some remarks on this subject at the Hospital for Epilepsy and Paralysis. He said, that as six of the nine cranial nerves—the optic, third, fourth, fifth, sixth, and portio dura of the seventh, (for the orbicularis and tensor tarsi)—had more or less to do with sight, a knowledge of diseases of the eye was of the very utmost importance in the investigation of intracranial disease.

Defects of sight were more frequent in diseases of the nervous system than defects of all the other special senses put together. Of defects of smell he knew little or nothing, and next to nothing of

defects of taste; but he had inquired carefully as to defects of hearing, and had found deafness to be much less frequent than blindness, and when present it was often due to organic disease of the ear and attended by discharge. Complete blindness was, he said, very commonly met with, but complete deafness was a very rare symptom in brain disease in his experience. Defects of hearing ought, he said, to be studied by physicians for the same reason as defects of sight, viz: for their value as symptoms. The watch ought to be used to each ear, as a patient might not be aware that hearing on one side was impaired. It need scarcely be said that a common simple cause of slight deafness was wax in the external auditory meatus; and, therefore, in noting impaired hearing, we ought to be careful that we were not putting down a symptom which really had no bearing on disease of the nervous system.

Dr. Hughlings Jackson then gave examples of the very great variety of causes of blindness in brain disease, and he submitted that to put down "amaurosis" as a symptom, without further description, was far from being precise. To begin with, the so-called amaurosis following diphtheria was not amaurosis, even in the loosest sense. It was in physiological language a loss of accommodation, and in anatomical language a paralysis of those branches of the third nerve which pass through the lenticular ganglion. Dr. Jackson said that diphtherial paralysis differed from all other kinds of paralysis with which he was acquainted in seeming to have a great preference for those branches of nerves which pass through the ganglia of the sympathetic. For instance, in the so-called diphtheritic amaurosis the whole of the third nerve was not paralyzed, but only those branches which pass through the lenticular ganglion. The facial was not paralyzed, but those branches of nerves given off by Meckel's ganglion to the palate. Next as to the otic ganglion. Hearing was practically not affected at all in the general run of cases, as the accessory muscles of the ear have far less to do with the functions of the organ of hearing than the ciliary muscle has with sight. But in one case, that of a well educated medical man, notes of which had been furnished to Dr. Hughlings Jackson, there was slight defect of hearing. It was not enough to render the patient unable to converse, but, to use the patient's expression, it "rendered music unintelligible." Next there was in this case, too, defect, not loss, of taste, due probably to an affection of the branch of the facial (the chorda tympani,) given off to the submaxillary ganglion. Again, it is well known that slowness of pulse is a very dangerous symptom in heart disease. It is possible that this, too, is due to an affection of the sympathetic, as the heart receives much of its nervous endowment from its cervical ganglia.

It will be remarked, too, that the paralysis of the ciliary muscle in diphtherial paralysis is generally on both sides, for diphtheria is a general disease. When, on the contrary, a patient comes for mydriasis and paralysis of the ciliary muscle on one side, we suspect his disease to be actually local, and not merely the local manifestation of some gen-

eral condition. There is generally some paralysis, however slightly marked, of the other muscles supplied by the third nerve, or they become paralyzed afterwards. Indeed, (after making allowance for the fact that the pupils are in many people in good health of different sizes,) a difference in size of the pupils is of great help to us in localizing disease. Thus, in the early stage of tubercular meningitis we may know that a child has acute tuberculosis by other signs, and a change in the relative size of the pupils enables us to diagnose further that active disease is beginning or progressing in the head. But when in such a case the pupils are equally small or equally large, we cannot speak so decisively as to there being local disease at the base. Hence, until we get physiological symptoms, as an alteration in the size of the pupils or strabismus, the diagnosis of tubercular meningitis is sometimes not easy. Or, in other words, the diagnosis in the early stage is difficult. Dr. Wilks says that he never saw a case of tubercular meningitis in an adult which was not in the early stage taken for fever.

Again, the effect of diphtherial paralysis on sight showed how different was disorder of function of the organ of vision from derangement of its mechanism from real amaurosis, in which the true visual part—the optic nerve—was diseased. And the slight deafness in the case of the medical man quoted was probably due to an analogous disorder of the mechanism of the organ of hearing by paralysis of the branches to the internal muscles of the ear, through the sphenopalatine or otic ganglia, rather than to an affection of the auditory nerve itself. So, too, as regards taste, the little change was most likely the result of some affection of the chorda tympani, than of the gustatory.

The next illustration was that of a family in which there were five children. The eldest, a girl, had had iritis in infancy. [Of Mr. Hutchinson's twenty-three cases of infantile iritis, five were males, sixteen females, and in two the sex was not known.] The three next had amaurosis. Of these three amaurotic children, the first and third (the second and fourth in the family,) were paralyzed. In one, a girl, aged 15, there was partial hemiplegia; in the other, a boy, aged 9, complete paraplegia. The amaurosis was, in all these cases, found to depend on bygone choroiditis, the irides being perfectly clear. That the choroiditis was syphilitic was rendered probable by the fact that the eldest showed marks of iritis in both eyes, and was, Dr. Hughlings Jackson thought, rendered certain by the fact that the two eldest of the amaurotic children had the form of teeth described by Mr. Hutchinson. Now, of course in the early stage, the exact diagnosis that the amaurosis was due to syphilitic choroiditis would have been of very great value for treatment, and even when the changes were settled into hopeless permanence, a knowledge that they were due to syphilis would have been of great value as a symptom, when the paralysis began, and it began *gradually, after* the amaurosis. For Dr. Hughlings Jackson thought it would be worth while to raise the question whether in such

cases the paralysis might not be due to new syphilitic disease of the pia-mater, a membrane somewhat analogous to the choroid which had already suffered. At all events, it is clear that for scientific purposes the nature of the amaurosis in these affections of the nervous system ought to be made out. It was, in the case just mentioned, the local manifestation of a constitutional taint, and not a special symptom of disease of the nervous system, and it might help us to gain a better idea of the kind of tissue disease within the head. Then, too, in writing the clinical history of diseases of the nervous system, an ignorance of the conditions producing the amaurosis would lead us wrong. Amaurosis and paraplegia are not unfrequently found together, but the case of the boy in the family just mentioned was the only one Dr. Hughlings Jackson had seen in which the amaurosis was due to choroiditis.

Next, apoplexy of the retina, which occurred so often in Bright's disease, but which Dr. Hughlings Jackson had once seen in a young and healthy man, was of great importance as a symptom as well as an eye disease. Dr. Jacob long ago alluded to this local apoplexy as a precursor of a cerebral one, and Dr. Hughlings Jackson related two instances in which apoplexy of the retina was preceded and followed by cerebral apoplexies. The retinal degeneration found in chronic Bright's disease ought, he fancied, to be studied by physicians. It was of great value as demonstrating that we had something more to deal with than kidney disease. The eye was to be looked on as a field for the study of diseases of tissue as well as an organ for important functions.

There was, Dr. Hughlings Jackson said, another form of amaurosis in brain disease which he had now seen a good many times. The following were, speaking generally, the ophthalmoscopic appearances described from one case lately under his observation:—For about three times the size of the optic disc was a patch which obscured the natural disc. It was in parts white and in parts of a brick-red and spattered with blood. Generally no arteries could be seen in it, but the veins were bulky and were irregularly seen, as they seemed to struggle their way through the patch to the centre of the disc.

This kind of amaurosis had been found in tumors of the brain. Dr. Hughlings Jackson said he had seen it once in a case of apoplexy of the middle lobe in a young man, in apoplexy of the anterior lobe in a young woman, and in several cases of cerebral tumors in different positions. He had now under care a case in which, with paralysis of the third nerve on one side, and hemiplegia on the other, this condition was found; and a similar case had recently been pointed out to him by Mr. Ernest Hart. It was difficult to account for the production of this kind of amaurosis, but it had not, Dr. Hughlings Jackson thought, been yet much studied, at least in England, perhaps for this reason: that such cases come under the care of the physician —to whom the amaurosis is but one symptom of severe brain disease —rather than of the ophthalmic surgeon, who sees amaurosis as a dis-

case of the eye rather than as a symptom of intra-cranial disease. It was, however, a symptom which deserved more study, and was to be found more often than was supposed towards the end of many acute intra-cranial affections. Dr. Jackson used the last vague expression advisedly, as the exact significance of the symptom had not been made out.

In nearly all cases of blindness attending cerebral disease there were ophthalmoscopic signs when the blindness had continued for some time. The condition generally found was white atrophy. It was very difficult, Dr. Hughlings Jackson said, to form any rational idea of the order of the symptoms in such cases, as, clinically, white atrophy was found in association with almost all kinds of disease of the nervous system, even with paraplegia of the lower limbs only. The most striking thing was that both eyes were nearly always affected. Dr. Hughlings Jackson could only remember a few cases in which the atrophy of the optic nerve was on one side. A few months ago a patient attended for giddiness, and just mentioned that for two years he had been blind of one eye, the right. He had had much advice, and did not come for the eye disease, but such a symptom was not to be lost. The optic disc was atrophied, the arteries and veins small, and he had a loud mitral murmur. He was assured that the blindness was due to the heart, and perhaps the giddiness too. He did not attend again, having had an attack of hemiplegia. Here, no doubt, the blindness was due to embolism.

In another case, Dr. Hughlings Jackson said he had seen blindness of one eye and hemiplegia, but he unfortunately has no note of any examination of the heart. A case like the following evidently belongs to quite a different category:—A young healthy patient is struck on the head, becomes very deaf, and has blindness of the right eye, paralysis of the right third and of the fourth nerves. The optic disc is white and glistening. Again, a young and healthy patient is struck on the head, has discharge of blood from the ears (but no deafness,) and from the nose. He is left for dead. He gets rid of the severe symptoms, and comes for amaurosis of the right eye. In the first case, several orbital nerves being implicated, the lesion was clearly about the entrance of the nerve to the orbit, and it is extremely probable it was so in the other.

There is a peculiar defect of vision called hemiopia due to disease of one optic tract, which, of course, injures the sight of both eyes. Dr. Hughlings Jackson said that he had only seen two cases of this kind—one under the care of Dr. Brown-Séquard, and one when he was clinical assistant at Moorfields. In Dr. Brown-Séquard's case the patient had paralysis of one third nerve and partial paralysis of the other, and hemiplegia. As the patient squinted, he knew that he had lost the sight of half of each eye. But in the other case Dr. Jackson had seen, the patient did not know that he had lost half the field of vision of each eye, as the good half of one covered the lost half of the other. The patient under the care of Dr. Brown-Séquard died

imbecile, and was, before his death, completely blind. The difference in the ophthalmoscopic signs in the period of half-blindness and of total blindness was most interesting. During the condition of hemiopia, the discs were quite normal; but when total blindness came on, both were quite white. It seemed, then, that during the hemiopia there was enough function to keep up the nutrition of the optic disc; but that when, from further disease (probably encroachment to the commissure, or to the opposite optic tract,) the function being then entirely lost, the nerves atrophied.

But, as before said, the common form of amaurosis in brain disease is that in which are found the ophthalmoscopic appearances of white atrophy. It is well known that blindness is found associated with disease of almost any part of the brain; but sometimes with other symptoms it was of great help to locate disease. For instance, Dr. Hughlings Jackson had under his care a boy about 12 years of age, who has double amaurosis, a head twice its natural size, and some time after these symptoms loss of power in all his limbs. In such a case it seemed all but certain that there was a tumor of the vermiform process of the cerebellum pressing on the corpora quadrigemina, causing the blindness, and on the vena galeni, causing hydrocephalus, the dropsy of the ventricles, just as pressure on the portal vein causes ascites. In another case a patient had double amaurosis and great fulness of the veins of the lids, so that the surgeon, under whose care she was at first, called the disease varicocele of the orbits. She had also constantly pain which she described as being "in the eyes far back in the head." A tumor was found at the autopsy situated at the sella turcica.

This last case, too, showed well the usual clinical history of the common form of amaurosis, viz: vomiting and intense pain in the head. The vomiting was "purposeless," and the pain was frequently at the back of the head. But this clinical history was common to cases of blindness, from the most diverse causes. For instance, in apoplexy of the middle lobe, tumors of the cerebellum, and tumors of the hemisphere.

In a few cases Dr. Hughlings Jackson fancied he had been able to be more precise as to the seat of the cause of the blindness.

He had under his care four patients who had had convulsions on the left side of the body and double amaurosis. Of course, it was in most cases difficult to be sure as to the exact range of the convulsions. But in one he had seen the patient in the attack, and in the others there was more or less paralysis on the side said to have been convulsed, confirming the patient's statement. The following was the best of the four cases:

The first part of the notes of the case was taken at the first visit. Geo. ——, aged 30, was admitted, under the care of Dr. Hughlings Jackson, 1862, for epilepsy. A few days before, whilst riding in an omnibus, he had a quivering in the left side of the tongue and left side of the cheek. At the same time the eyes "became dim and

sparkled." This continued for seven minutes, and then he, having left the omnibus, found that the left arm was "pulled right up." Next he slipped down, and then became insensible, he thinks for about half an hour. He could tell nothing about his condition in the fit. In a little time he was able to walk from the police station, where he had been taken, to a cab.

Six weeks before he had had a little working in the left side of the mouth for about ten minutes. This was the only suspicious symptom until the attack for which he came.

His general health was good, except that he had pains in the limbs, worse at night. For this he had been attending Mr. Hutchinson, who had given him iodide of potassium. Two years ago he had had chancres, followed by buboes. He had, however, except the pains in the limbs, had no other suspicious symptom.

It will be seen that the parts affected in the fit are those supplied by the right middle cerebral artery. This vessel supplies the corpus striatum, hence the affection of the limbs; both optic nerves, hence the affection of sight; and the hemisphere, hence the insensibility following the two above named symptoms in the paroxysm.

Some months afterwards Dr. Hughlings Jackson, not having seen the patient after the first visit, sought him out, and found him blind of both eyes and paralyzed on the left side of the face and the left arm. The leg was scarcely affected. Indeed, the hemiplegia was just that which Dr. Hughlings Jackson pointed out in some cases of supposed embolism of the middle cerebral artery.

There was another little fact in this case which rendered the idea of the epilepsy and paralysis being in a definite arterial region more plausible, viz: that the sight of the *right* eye was completely lost, and that there was still partial vision of the other. The right optic tract which sends fibres to both retinæ is supplied by the right middle cerebral artery, so that the fibres going from this tract to the left eye would be damaged, and also the fibres going from it to the left optic tract would be so also. Again, the right optic nerve formed by parts of both optic tracts would be affected, as it also is supplied by the artery on the right side.

This holds good for another of the four cases, but in the remaining two the condition is exactly the opposite; the eye on the side of the convulsed limbs is the worse. This, of course, bears strongly against the hypothesis; but Dr. Hughlings Jackson thought there was enough plausibility to render it desirable to investigate further. He thought from several circumstances that epileptic seizures occurred in arterial regions of the brain, rather than in its physiological divisions—in regions of nutrition, and not in regions of function; and he thought that the frequent occurrence of amaurosis in brain disease was to be explained by the fact that the optic nervous system from the corpora quadrigemina to the retinæ passed through several arterial regions, and that just as hemiplegic paralysis follows hemiplegic epileptiform seiz-

ures, so amaurosis follows temporary defects of sight in various kinds of epileptiform attacks.

Dr. Hughlings Jackson has already observed that whenever loss of speech occurs with hemiplegia the hemiplegia is on the right side. Dr. Jackson has now had under observation about twenty-eight cases, and he still thinks it plausible, if not highly probable, that the cause is embolism of the left middle cerebral artery. He intends, then, to investigate the sequence of symptoms in the paroxysm, and the subsequent mental condition of a patient who has epileptiform convulsions on the left and right side respectively.

Some cases of epilepsy begin by alteration in smell. It is the so-called aura. If epilepsy occurs in arterial systems the spasm should in such cases begin in the range of the anterior cerebral artery; and, if limited to that arterial system, there would be no muscular spasm—no local spasm of one side at least—as this artery does not supply any part of the motor tract.—*Medical Times and Gazette.*

Bright's Disease—Hypertrophy of the Left Ventricle—Apoplexy.—The concurrence of chronic Bright's disease, (the granular kidney,) hypertrophy of the left ventricle, inelastic, tortuous arteries, and sanguineous apoplexy, is a recognized clinical fact. It was strikingly illustrated recently by two cases at Guy's. In both the patients had been, until the rupture of the vessel in the brain, well, in the conventional sense of the word; yet, as people are doing every day, they went about, although particularly ill nowhere, in a state of general disease. They were seized with apoplexy, and died in a few hours. In one, the corpus striatum was torn up, and blood had escaped into the ventricles; in the other, the clot was in the pons Varolii. In such cases, as a rule, there is no attendant dropsy to point prominently to renal disease. Nor is this symptom generally to be found in the slighter kind of apoplexy, apoplexy of the retinæ.

Besides the obvious practical importance, this association is most interesting as illustrating the clinical study of disease. Nothing could show better that it is to constitutional conditions, rather than to local damages, that we should devote our attention. Of course some diseases, especially in young people, must be thought of as damages to organs, although often brought about by constitutional affections, and although they produce secondary results in the greater part of the body. Thus the mitral valve is damaged in acute rheumatism, and the organ is permanently defective. There is a good instance of local damage in Stephen's Ward, Guy's Hospital, under the care of Dr. Wilks—aortic disease, allowing regurgitation, following overwork in a young and very healthy man. In this case the heart's mechanism is deranged, but its tissue is good or healthily hypertrophied. But in the hypertrophy attending Bright's disease, and where there is a movable pulse, and perhaps an arcus senilis, we have quite a different kind of disease. In one, the symptoms are general, because the organ dam-

aged is a central one; in the other, the symptoms are general, because the tissue changes are universal.

Before the sanguineous effusion we may do good to the patient, but our efforts are generally useless when blood has been effused in the pons Varolii, and unfavorable when in a part less important to life, as when hemiplegia results from rupture in the corpus striatum, or blindness occurs from retinal apoplexy. The place of rupture is, comparatively speaking, an accident, and in some instances of apoplexy of the retina, it is of less importance to the individual than the attendant hypertrophy of the left ventricle and the renal disease. Nay, sometimes the effects of rupture are insignificant, from the comparatively unimportant function of the organ in which it occurs, as in epistaxis, which now and then precedes retinal or cerebral apoplexy. But though the damage is slight, the symptoms may have a very ominous significance if associated with the other conditions referred to, and scarcely any if these are not present.

To show still further how general is the constitutional condition which often ends so suddenly, so dramatically, we may mention the now well known condition of the retina, by which alone granular kidney may be, and often is, confidently diagnosed. But as we have already published a series of cases of this kind, with remarks by Mr. Hulke, we need not now dwell on it, except to repeat that it is often associated with apoplexy of the retina. Cases of this kind are not uncommon. A patient of middle age becomes suddenly "blind;" apoplexies are found at the yellow spot; the urine contains albumen. He gradually "recovers" from the blindness, and, indeed, sometimes to a surprising extent, and insists that he is well; and yet, still having no dropsy nor any œdema, his urine continues loaded with albumen, and he dies a few months later of rupture in a more vital part of the nervous system.

In another case, a patient has first an attack of hemiplegia and albuminous urine. He "recovers" from the hemiplegia, but a few months later has apoplexies of both retinæ, then paralysis of part of the face, and a few days later dies suddenly.

The first of these cases refers to a patient under the care of Mr. Wordsworth, at the Royal London Ophthalmic, and the other to one under the care of Dr. Hughlings Jackson, at the Hospital for Epilepsy and Paralysis. There is now also attending at the latter Hospital, under his care, a case of hemiplegia in a woman, forty years of age, who has the peculiar retinal degeneration alluded to and albuminous urine; and, although her sight is still good, and although, except for the hemiplegia, she would be said to be, speaking popularly, healthy, she must be considered to be in constant danger of further rupture in some other part, perhaps more important than the one lesion which now produces the hemiplegia.

One great practical point in reference to such association of diseased conditions, is as to the value of certain premonitory symptoms in individual cases. For instance, as Dr. Gull remarked in a recent

lecture at Guy's Hospital, a symptom like giddiness may have comparatively little significance, or be of very evil import. A very slight cerebral symptom should lead us to examine the heart and kidneys. If we found no evidence of disease in them, we might hope that the giddiness was not a warning of any grave evil; but if we found hypertrophy of the left ventricle, and if the urine were albuminous, the least giddiness would lead us to give a most cautious prognosis.

The same kind of reasoning applies to other diseases. A young man who has cardiac disease and sudden hemiplegia from plugging of the middle cerebral artery, or a patient who has hemiplegia following an attack of unilateral convulsions associated with a deposit of syphilitic lymph in the pia mater on the surface of the opposite hemisphere, have really, for treatment, diseases quite different to the hemiplegia in a patient past fifty, who has chronic Bright's disease, rigid arteries, a movable pulse, hypertrophy of the left ventricle, and an arcus senilis, although the same physiological system is damaged in all three cases. In fact, and this is *most* prominently true of hemiplegia, many diseases *of* the nervous system are rather diseases *in* it. Hemiplegia is generally due to rupture of a vessel rather than to primary disease of nervous tissue. It may be confidently asserted that it is, in cerebral disease, of just as much importance to examine the heart and the urine as it is to enter into a scrutiny of the symptoms of the actual disease for which the patient comes to us. Probably the treatment will not vary, whether the blood be effused in the retina, in one hemisphere, pons Varolii, or spinal cord. The physiology would be exceedingly different, but the pathology—effusion of blood in nervous tissue—would be just the same. In cerebral disease it is, therefore, of far greater importance, at least in a utilitarian point of view (and ours is a utilitarian profession,) to ascertain the state of the patient's circulation and viscera, than to get to know the exact position of the disease. We do not wish by any means to underrate the physiological study of diseases of the nervous system, but the clinical study of these diseases ought to be carried on *pari passu*. Sometimes the physiological fact and the clinical fact will point to the same conclusion. For instance, paralysis of *part* of the face shows *central* disease, [paralysis of the whole of the face would indicate disease of a *nerve trunk* outside the central nervous system,] and this coinciding with evidence of renal degeneration, shows that not only is the patient's condition dangerous, but that danger is at hand.

Whilst, then, in cerebral cases, whether slight giddiness, paralysis, or apoplexy, we diagnose, when we can, the exact seat of the disease; we should examine the heart, the urine, the radial and temporal arteries, the eye for arcus senilis, and we may, too, look at the retina for further evidence of tissue-change. In a word, when we study diseases as defects of organs, we must attend carefully also to the general signs of degenerations of tissues. As a final illustration of this principle we may instance syphilitic affections. Here a node on the tibia, in the liver, a nodule of lymph on the iris, or a mass of lowly-organized

material on the surface of the brain, are pathologically one, although, as damages of different organs, they produce the most diverse symptoms. Yet the treatment of syphilitic inflammation of the choroid, iris, or pia mater, is the same, although the organ in which the syphilitically-diseased tissue exists is so very different. It is the development of such principles that gives so high a practical value to the teachings of Laycock, tending to substitute a rational treatment of the patient for a kind of artillery practice at the diseased point where his special ailment is localized when he consults us.—*Medical Times and Gazette.*

On Sporadic Pellagra—Italian Elephantases.—In the form of a practical lecture, M. Landouzy has recently given his most recent observations relative to the pellagra, describing first such characteristics of the affection as have been noticeable in the pellagrous patients attended at the Hôtel Dieu of Rheims during this year.

"Pellagra," he says, "in lunatic asylums is now with us only a question of general hygiene and alimentation."

"The pellagra is a constitutional affection, not infectious, characterized by the isolated, simultaneous or successive appearance of cutaneous, digestive and nervous accidents, which manifest or increase most frequently in spring.

"In the endemic form it has been severely felt in several provinces of Spain, France, Italy, and, perhaps, also in other countries where it remains unknown.

"In the sporadic form, it is general in France, and probably in other countries also.

"It attacks all classes of society, but the poor in particular.

"It most frequently shows itself in a chronic form, but sometimes also under the form of an acute affection, which at first resembles a typhoid disorder.

"It is very often accompanied with, and almost always followed by, mental alienation.

"Although it constitutes one of the most serious and most complex conditions, it is, however, susceptible of cure, even at a very advanced stage.

"The hypothesis regarding maize as the exclusive cause of this affection must be totally abandoned.

"The same must be said of mental alienation which has hitherto been considered as the frequent cause of pellagra, and which is certainly not so.

"The cases of pellagra observed in certain lunatic asylums ought to be attributed to the inadequate attention given to hygiene or alimentation, and never to insanity.

"The most frequent cause of the disease appears to be misery under every form, that is to say, physical suffering and mental suffering."—*Social Science Review.*